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# THE JOURNAL



of the

## Oklahoma State Medical Association.

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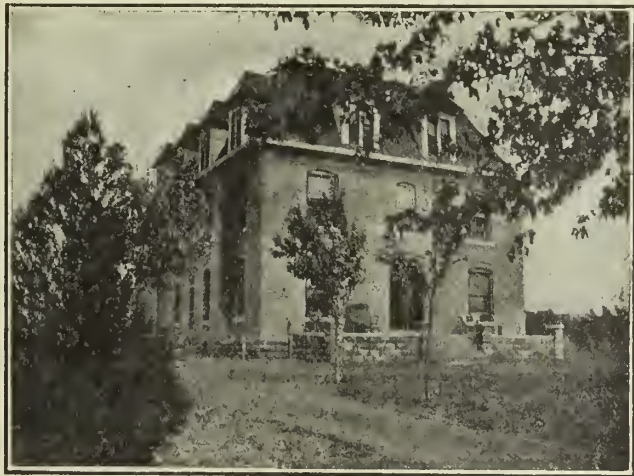
### INDEX TO CONTENTS.

Address of the President By Dr. Charles L. Reeder, Tulsa, Okla. ....	1	EDITORIAL:	
"Eugenics," Chairman's Address By Dr. A. B. Montgomery, Muskogee, Okla. ....	6	Osteopathy Our National Farce .....	17
"Surgical Section," Chairman's Address By F. L. Carson, Shawnee, Okla. ....	8	The State Board Has Resumed Reciprocity .....	18
"The Merging of the Section on Nervous and Mental Diseases With That of General Medicine," By Antonio D. Young, Oklahoma City, Okla. ....	11	Clean Up Time .....	19
"Osteomyelitis of the Acute Infective Variety," By Curt. von Wedel, Jr. M. D., Oklahoma City ....	12	Twentieth Annual Meeting, Shawnee, May 7, 8, and 9, 1912--Proceedings of House of Delegates and Council .....	19
		Report of Examination for Licenses to Practice Medicine .....	26
		New Books .....	27
		Officers' Directory, Oklahoma State Medical Association Section Chairmen .....	28
		Roster of Members of Oklahoma State Medical Association .....	29

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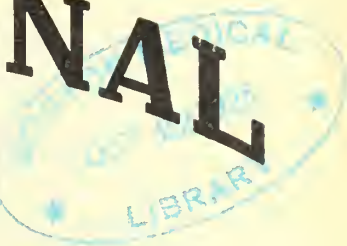
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Oklahoma State Medical Association.



VOL. V

MUSKOGEE, OKLAHOMA, JUNE, 1912

No. 1

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ADDRESS OF THE PRESIDENT.

Dr. Charles L. Reeder, Tulsa, Oklahoma.

It is with a sense of pleasure that I express my hearty greetings and will take advantage of this early opportunity to express my deepest thanks for the honor you have been good enough to confer, in your selection as President of The Oklahoma State Medical Association. It is the highest honor that a member of our Fraternity could receive, to be the Executive Member of as grand an Association as this, "The Oklahoma State Medical Association."

During the past year, the Medical Association of Oklahoma has been busy within and without the State and the general recognition of the standard of the profession in the State of Oklahoma is without doubt recognized by nearly every state in the Union.

The medical laws of Oklahoma while not the best and all that we might desire, yet a number of states much older have been striving to establish similar legislation. The divorcing of the Board of Health from the Board of Examiners is also an evidence of the advancement of the new State of Oklahoma.

It is with pleasure that I mention the general harmonious conditions existing throughout the State. The County Societies as a rule have discarded personal differences and are acting in unity for the betterment of the profession.

It is strange, indeed, that from time immemorial the medical profession has been isolated and alone, in one instance at least, that the members of the Medical profession have through jealousy, selfishness, ignorance and maliciousness, both secretly and openly, done everything in their power to the detriment of the profession. Too often the question of fees, or the question of ethics, or the question of some certain outlined plan of medical education has been the cause of discontent, but the fact remains the same. We differ from the attorneys and the craftsman and in all lines of professional and scientific labor, that we do not stand by our brother practitioner. We have no regard for the collection of his fees representing oftentimes months and months of continuous labor, and very often representing in advance of that, money spent for medication that he could ill afford to use and was thereby depriving his family of actual necessities; it is to such a system as this that makes possible the great agitation as to "fee splitting." It is not my intention to attempt to enter into the discussion regarding the splitting of fees and the grafting of certain members of the profession, but I do desire to go upon record with this statement, that the physician who makes the diagnosis is the one that is entitled to name the fee, and the surgeon he employs to do the surgery is entitled to a reasonable fee to be decided by the physician and the family.

I am glad to be able to state that the years of sanitary reform in the State of Oklahoma are at last beginning to show results and in every portion of the State the sanitary conditions are improving. The water supply and the drainage is receiving intelligent care in every community; contagious and infectious diseases are receiving prompt and efficient attention to such an extent that it has proven to the good people of Oklahoma that the rules and regulations of the Health Department of this State, when promptly executed and carried out mean the saving of human life and the prevention of disease. Along this line I might mention that dreaded death-dispenser, cerebro-spinal meningitis, has developed in numerous localities of the State, but the prompt and efficient modern treatment has certainly prevented the development and spread of this disease, and we feel at this time that there need be no alarm from cerebro-spinal meningitis.

During the past year much good has been accomplished in the reporting of cases of tuberculosis required by the State Health Commission and the constant agitation and education among the masses of the people regarding the Great White Plague is of the greatest value; it has educated the housewife in the purchase of milk and butter and meats to thoroughly investigate and know the source of supply and aid in many ways to avoid liability of contamination.



Typhoid fever, the mosquito and the common housefly are also subjects of public agitation and the result is absolutely wonderful, and now it is the exception and not the rule to find a home contaminated with house flies or mosquitoes. The supply of drinking water in nearly every home is so thoroughly arranged that infection by the usual water route is greatly reduced, and about the greatest harm at this time is the use of impure goods and drugs offered for sale and sold with apparent authority from the government but without proper inspection. It should be the duty of every physician as well as every citizen to promptly report the sale of adulterated foods, unclean vegetables, impure milk, etc., and I would recommend that the findings of the State Board of Health as published in the Monthly Bulletin have a general publication throughout all the papers in the State, thereby giving to the citizens of Oklahoma each month such information that would be of untold value in the purchase of family supplies.

I am glad to state that the objection to vaccination and other prophylactic treatments for the prevention of disease is hardly noticeable in Oklahoma, but I note that such publications as "Life" and the publications of Elbert Hubbard continue to agitate and cry out against vaccination. By united effort of the Medical profession such publications might be brought to a full realization of their duty.

We have as usual, this year as in the past, the general agitation as to exchange of registration from state to state and the question of a National Board of Examiners. It is to be hoped that the medical requirements of several states of the Union will become so uniform that the capable physician of one state will not be forced to suffer the inconvenience of a medical examination should he desire to locate in a sister state. And while upon the subject of legislation I cannot afford to omit mention of the valuable service of Senator Robert L. Owen in attempting to establish an independent public health service now before the Senate known as the Owen Bill, Senate Bill No. 1, and I feel that every member of the profession should support this measure; the profession especially of the State of Oklahoma should by every means possible give reliable support to this bill, and as an Association, we should show appreciation by a resolution endorsing in full this measure and I would recommend that a committee of three be selected to see the representatives and senators from this state for the purpose of explaining to them the benefits to be derived from this independent public health service.

I desire to avail myself of this opportunity to say that the State Board of Pharmacy should be censured for permitting public booze-joints to be conducted throughout the entire state of Oklahoma under the name of drug stores and pharmacies with or without authority of registration. Personally, I am a registered pharmacist in the State of Oklahoma and I am convinced that the requirements of the State Board are sufficient. I do not doubt the competency or proficiency of any member of the State Board of Pharmacy, and am thoroughly convinced that as a Board of

Pharmacy for the legitimate drug stores we have an ideal board, but for open booze joints to be permitted to sell bad whisky and beer without restriction and continue in business after they have been raided times without number is certainly a fault that should be corrected, and if the laws controlling pharmacies in Oklahoma are so constructed that the Board of Pharmacy cannot protect the legitimate drug store and the community, then the medical profession and every good citizen should unite in demanding laws that will guarantee such protection.

It is to be hoped that our Association will be fully represented at the next meeting of the American Medical Association, thereby giving the solid support of the State of Oklahoma in standing for such measures for the public good that may come before that organization, and I feel that this year is indeed a critical one for medical legislation.

As the matter of medical education is always of interest, I am pleased to state that the possibility of thorough medical education is moving westward: that following the establishment of the amalgamation some years ago of universities and colleges in the city of Chicago we have the assured information of the amalgamation of universities and colleges in the city of St. Louis, with sufficient endowment that will mean in the future an institution on the level of Johns Hopkins University of Baltimore. I am sure this will have the approval of all members of our profession and a pleasure to realize that the trend of education is westward.

The question of the physician as a business man has been so oftentimes discussed in county and state societies and through the columns of the splendid medical journals of the country that it may appear somewhat tiresome to refer to it. It is a universal fact that no one takes kindly to criticism, but the few remarks along this line will not be made as a criticism. We know that the active, busy practitioner of medicine has little time for business; we also know that the practitioner is not placed in the same position as the banker or the business man in extending credit. The doctor is called upon in a case of emergency, possibly some horrible accident or injury; possibly some serious illness involving the life of a human being and the question of time or payment or liability of the doctor cannot enter into the proposition at all. After the doctor has become associated with the case it then becomes to him a matter of professional duty and not one of commercialism, but for all that, with pure fraternalism the physicians themselves may aid each other and adopt certain business methods as to the regularity of the collection of their accounts and also as to some uniformity as to their professional charges.

But there are business methods that every doctor should observe as a matter of self preservation. Every doctor should carry accident insurance sufficient to fully protect him and his family should he meet with an accident. The State Association should investigate the reliability of the ac-



cident insurance companies doing business in the state and aid if possible in securing the minimum rate for the members of our profession. And along this line the question of life insurance should be most seriously considered by the busy doctor, and he should carry sufficient life insurance to protect his estate for his liabilities at least, and while upon the question of insurance, I desire to suggest to the busy doctor the theory of the establishment of the Physician's Home and that the great State of Oklahoma have established within her borders a suitable home, owned and maintained by the medical profession for the care and maintenance of the aged and infirm doctor, the one whose life has been given freely to humanity; the one who has labored for the benefit of others and not himself who by misfortune, age or disease has become unequal to the cares of maintenance and who is too proud to feel that he is an object of charity or a burden to his friends or relatives. It is for such an individual that I would recommend a home built, equipped and maintained by the voluntary contribution of the busy, active doctor who might feel that each time he deposited his voluntary contribution that should misfortune overtake him there would be waiting a hearty welcome in the home he himself had helped to establish.

I desire to recommend the establishment of tubercular camps or colonies to be suitably located and maintained by the State of Oklahoma; also the establishment of a Bacteriological station in each county of the state, under the supervision of the State Health Department for the distribution of serum, antitoxin and vaccine necessary for the stamping out of contagious and infectious diseases, and that the same be furnished at a minimum cost to any one and to the poor without expense at all, and providing for the regular examination of the schools. Such legislation can easily be secured by the active support of the members of this Association. It is a worthy cause and one of the most vital interest, and the legislative body of the great State of Oklahoma could easily be made to understand that diphtheria, scarlet fever, typhoid fever, smallpox, etc., are as destructive to life as the black leg in cattle and the notorious Texas tick.

During the past year the question of appointing a suitable representative of this Association to attend State Association or National Association Society meetings, (other than the regular medical association meetings) the question of expense has oftentimes been presented and it appears to me that this Association without delay should arrange by universal consent that such expense should be borne by this Association, as it is very apt to work a hardship on our representative to not only lose his time and perhaps very valuable professional business, but to place upon him the additional weight of loss of money by reason of his actual necessary expenses.

Before concluding, I desire to express to the Honorable Lee Cruce, Governor of the State of Oklahoma, the deepest appreciation for courtesies extended this Association during the past year, and I am indeed thankful

to the individual members of this Association for their assistance, and feel that it is such a spirit that is responsible for our splendid organization.

In conclusion, I desire to thank the citizens of the City of Shawnee and the members of Pottawattomie County Medical Society, collectively and individually, for this splendid meeting and trust that the good people of this locality will retain as a pleasant memory this annual meeting and hope we may have the pleasure of meeting here again.

---

## EUGENICS, CHAIRMAN'S ADDRESS.

### Section on Pediatrics.

Dr. A. B. Montgomery, Chairman,  
Muskogee, Okla.

Eugenics, a branch of biology organized as a science by the late Sir Francis Galton, is primarily an analysis of the agencies under social control that can favorably or unfavorably affect the physical or mental condition of posterity.

Eugenics deals with the normal as well as the abnormal type. It handles the statistics of families, schools, colleges, fraternal organizations, as well as those of asylums, hospitals and penitentiaries, in order to determine and measure the socially controlled agencies that are in force.

These statistics show that the physical and mental conditions of early members of a family—first born and second born—is sharply differentiated from that of later members. Where, for example, tuberculosis, insanity, criminality, albinism, are found in a family, they are found to predominate tremendously in the first and second born over those born later. Observation shows nearly twice as many cases of tuberculosis in the first born of tuberculous families as the mathematical probability would lead us to expect. The actual observed frequency being represented by 112. The expected frequency is about 66. In the second born, the figures stand: expected frequency, 64; actual observed frequency, 80. When we get to the third-born child, however, the relation is reversed. The expectation is 58, and the actual frequency only 40; and all the way down the order of birth from this point, the expected frequency is continually in excess of the observed frequency. In criminality and albinism, expected frequency is in excess of observed frequency after the second born; but in the first born actual observed criminality stands at 120 as against an expectation of 56.

These records are startling. They show the great liability of the first and second born to the weight of a heavy social handicap and the corresponding chance for the later born to be exempted into normality.

Clearly if you cut off the later members of the family—if you have two children instead of seven to a family—you are cutting into the exempt

class, reducing the relative proportion of sound stock in the community and greatly increasing the relative proportion of the tuberculous, insane, criminal and albionotic.

These researches also show the relative fertility of normal and pathological stock. Their table shows that in a given number of families of each kind, those of diseased stock contain about 20% more children than those of normal stock.

The above is taken from an article in "The April American" upon "A New Science and Its Findings."

In these days when preventive medicine is receiving ever increasing prominence this question is a very important one and especially to the physician, for it is his privilege and duty to inculcate into the laity knowledge of its importance and the far reaching effects of a compliance with or a violation of the immutable laws of nature.

We cannot produce grapes of thorns nor figs of thistles. Like begets like. "The sins of the fathers are visited upon the children." These frequently quoted sayings become veritable truisms in the light of the new science and its findings.

Every child should possess the inalienable right to be well born. The proper time to prepare for this is several generations before its birth. We all know that racial and family peculiarities of physique, such as shape of head, face, features, color of eyes and hair, polydactylism, syndactylism, club-foot and cleft palate exist as well as certain intellectual and mental peculiarities besides many more perhaps of which we possess very little knowledge.

The question of the sterilization of the habitual criminal, the insane, those afflicted with certain diseases and the requiring of a certificate of physical health before marriage is already receiving well-merited attention both by the law and clergy.

The study of the effects of prenatal or intra-uterine influences upon the unborn child is yet in its infancy. The physical perfection and beauty of the ancient Grecian race was ascribed to the fact that her child-bearing women, when pregnant, were furnished with an ideal physical, mental and moral environment. They read good books, gazed upon beautiful paintings and statuary and heard no harsh words, quarrels or bickerings.

The question of infant feeding and its intimate relation to infant mortality is an all important one. Many of us are far too ready to advise artificial feeding, perhaps forgetting that even partial breast feeding may make all the difference in the world with the infant's future physical well-being, owing to the increased vitality and resistance furnished by the mother's milk. In the case of weanlings laboratory physiologists have made recently interesting studies upon the effect of various foods upon indigestion and various other conditions of the excretions. They have decided



that children in the first few years of life, below the fifth, should partake of animal food rather sparingly, once daily. More animal food increases indicanuria by increasing intestinal putrefaction. The indicanurics are apt to be morose, sullen and more intractable and difficult of restraint than perfectly normal children.

This question of the effect of diet upon the mental efficiency as well as the physical state of the growing child is also fruitful ground for further study and investigation. Statistics concerning delinquent and incorrigible children in our great cities show that a very large percentage of them are the subject of physical defects which may be and probably are, in a large measure, to blame for their delinquency and incorrigibility.

The medical inspection of school children and the provision for the correction of the recognized defects may be made a very potent agent for good in this direction. In this utilitarian age we reckon results by dollars and cents and these measures would eventually bear financial fruit in large measure in the form of reduced tax levies for support of the insane, pauper and criminal classes.

Let us then as physicians think of these things, each endeavoring to add his mite to the sum of human understanding and progress in this great work.

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### SURGICAL SECTION.

**Chairman's Address, F. L. Carson, Chairman, Shawnee, Oklahoma.**

(Read at Twentieth Annual Meeting of Oklahoma State Medical Association, Shawnee, May 9, 1912.

While surgery is one of the oldest branches of the therapeutic art, yet the surgery of today is of comparatively recent development. It is only a few years since one was looked upon as a genius who could perform an intra-abdominal operation, and have the patient survive; and such operations were undertaken only as a last resort, while today every village has one or more men who undertake and carry to a successful conclusion operations that were only dreamed of half a century ago.

As surgery has advanced we have come to a better understanding of pathology, not dead-house pathology but pathology of the living in the early part of the process.

As a result of this knowledge we have learned that many diseases are amenable to surgical treatment, if done early, and we are now operating not merely to save life, but also to relief distressing symptoms.

My object in writing this paper is to refer in a brief way to the recent achievements in surgery and in a general way to what we hope to accomplish within the next few years.

Mumford says, "The medical man who thunders of modern wisdom, is but a parrot," yet we have made certain definite progress.

Grieg Smith writing in 1888 quoting the mortality of ovariectomy as 5 per cent said, "Surely this is the 'ne plus ultra' not only of abdominal surgery, but of all surgery." Certainly since that time we have made progress, for we have seen the mortality of this and similar operations decline, until now in the hands of experienced operators, that is only a fraction of one percent in uncomplicated cases.

The past year has witnessed wonderful advance in the art of surgery—both experimental and clinical.

Rapid advance has been made to cure and mitigate human suffering.

To animal experimentation is due a large portion of the credit of our increase in knowledge in this, as in other branches of medicine. In a paper of this kind, it would be impossible to enumerate the many measures that have been made possible, as a result of animal dissection and experiment, since Harvey demonstrated the circulation of the blood, down to the recent work of Carroll and others on vascular surgery. It is sufficient to say, that if we are to continue to progress, if we are to continue to unravel the yet unsolved problems of surgery, work on dumb animals must not be impeded.

That dream of centuries, the actual transfusion of whole living blood from a sound individual to one suffering from hemorrhage, or other blood dyscrasia has been realized, and during the past year we have seen its use become more and more extended and its technic simplified until, from an operative standpoint, it is now regarded as a simple procedure.

Advocating Salvarsan as a cure for syphilis in a single dose was a daring conception of Ehrlich, and one that was theoretically sound, as there is no doubt that the drug is a specific for spirochetes. Clinically, it has been amply demonstrated that Salvarsan does not usually cure in a single dose. This disparity between the experimental and the clinical is explained by the fact that some few of the spirochetes are not accessible to the drug, but are hidden in tissues away from the direct influence of the circulation, and these few will survive and reproduce and the patient have a relapse.

While Salvarsan has not fulfilled the expectations which it heralded yet it has done more than to improve our armamentarium in the treatment of the diseases for which it was advocated. It has given an impetus to the investigation of chemotherapy that promises to result in great good.

Ehrlich has renewed his endeavors to discover a *Therapia Sterilisans Magna*, and Wassermann and many others are working along similar lines to discover a specific for malignant growths.

During the past year, we have seen the extremely complicated, and rather unreliable, serum reaction of syphilis advocated by Wassermann,

simplified and made much less subject to error. As performed by Tschernobow, the test is very simple, and is said not to be open to the same objection as the original, viz.: positive reaction in the presence of certain non-specific tumors of the central nervous system.

In the luetin test recently discovered by Noguchi we may have a still farther refinement in the diagnosis of syphilis as it is claimed that saturation of the system with anti-syphilitic medication does not affect the reaction.

At the present time, the serum diagnosis of cancer, is not to be too strongly relied upon; yet, if the reports of the work of Stammeler and others are to be believed, the miostagmin reaction will aid in clearing the diagnosis in malignant disease in the viscera that cannot be subjected to the ordinary methods of examination.

The successful cultivation of human tissue in vitro will facilitate the study of cellular activity and may lead to a better knowledge of the cellular anarchy present in cancer.

We have seen viscera and limb transplantation perfected to such a degree that it is within the realm of possibilities, that future legislative enactment may be necessary to prevent the barter of organs and extremities.

The great increase in the number of operations has resulted in benefits to humanity which can best be realized by considering how many conditions are now cured, that formerly were either endured through a life of suffering or were relieved by death.

The evils that have resulted from the rapid rise in surgery, are not many, and are remediable. It is an unfortunate fact that many men practicing surgery are not properly qualified, have no special training and make no attempt to keep abreast of the times, by visiting the clinics of the "masters of the art" but, who are lured into the attempt chiefly by the hope of getting some of the wealth erroneously supposed to be had by the men doing surgery. For this, there is only one remedy, and that is publicity. This movement has already been started and largely by those who are evidently enemies to the profession. It is for us to see to it that the public is taken into our confidence and the general practitioner made to realize that he is under surveillance, and that he can only retain the confidence reposed in him by keeping himself above suspicion.

The evil I have in mind is "fee splitting." It is like a cancer, largely local early, but if suffered to continue in silence becomes incurable. Surgeons have to deal with this as with cancer by early and radical extermination.

It is wrong for us to assume the attitude of the Pharisee; it is our duty to see that the others do better. We all know that the general practitioner does not get the pay his services are worth in diagnosing and advising operation in a surgical case. But that does not justify us in secretly di-



viding fees with him. He must learn to demand larger fees, and must make his fees commensurate with the services rendered. Surely it is worth more to render a diagnosis in a case of Carcinoma of the Cervix than in a case of measles. The general practitioner must instruct his clientele that "the servant is worthy of his hire." He must stop making charges at a stated amount per visit regardless of the methods used to make a diagnosis, or the responsibility of advising an operation. Within recent years all the commodities of life have risen 100 per cent except the visits of the physician. He must make extraordinary charges in extraordinary cases if he is to survive.

This evil (fee splitting) is upon us, in our own state. We deny the assertion recently made in a lay magazine that it (fee splitting) is universal. There are many men who refuse to enter into such a nefarious practice, but it is present in a sufficient quantity to awaken us to the fact that it must stop. I have it from good authority that members of this section have made offers as high as 60 per cent for out-of-town work.

It was not my intention to refer to this unpleasant subject, but the recent attack in the lay magazine by half-informed persons, and the scurrilous advertisements of these articles in the daily press led me to believe that some action should be taken by this section. The members of this section have it in their power to crush the evil of "fee splitting" in this state, and I earnestly recommend that some steps be taken toward its eradication within the next twelve months.

In conclusion, let us bear in mind the saying of Rhazes: "He alone merits your confidence who, having opportunely applied himself to the study of medicine, has frequented able masters and seen much of the sick; who joins to the assiduous reading of good authors, his personal observation. For it is impossible to see all, to test everything one's self, and the knowledge, the experience of a single individual compared with the knowledge and the experience of all men and of all ages resembles a thin thread of water beside a great river."

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## THE MERGING OF THE SECTION ON NERVOUS AND MENTAL DISEASES WITH THAT OF GENERAL MEDICINE.

Antonio D. Young, Oklahoma City

Chairman Section on Nervous and Mental Diseases, 1912 Meeting of the Medical Association.

Since Nervous and Mental diseases have so many symptoms in common with diseases of other character, I have long been of the opinion there should be no separate section in our State Association for this specialty. It seems specialism can sometimes be carried to extremes, and after all, the

various branches of medical science are so correlated and interwoven that all could well be classified under one of two heads, Medicine or Surgery.

Then it is sometimes difficult to ascertain in what department certain essays belong. Take the paper to be presently read by Dr. Curtis R. Day, and it could well be presented in the Nervous and Mental, Preventive Medicine or Genito Urinary Section. Only a few days ago during a conversation with me, Dr. Day remarked how advisable such a consolidation of sections would be, and said, "A specialist in Nervous diseases must be a good general man, and a general man can not be good without knowing Nervous diseases." With all my command of the mother tongue I could not express the situation more aptly. Two instances will be sufficient to illustrate. A physician in general practice diagnosed tabes in a drunkard and consigned the patient to a life of invalidism. A neurologist withdrew the alcohol. Complete recovery followed. The man had alcoholic neuritis. To show how the law of compensation comes to the surface it is only necessary to cite the other instance. A neurologist decided a patient was the victim of neurasthenia, but a general practitioner proved the presence of incipient tuberculosis.

So today we have the two sections merged and I am sure those subjects pertaining to Nervous and Mental diseases will be of interest to all.

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(Read at Twentieth Annual Meeting of Oklahoma State Medical Association, Shawnee, May 8, 1912.)

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### **OSTEOMYELITIS OF THE ACUTE INFECTIVE VARIETY.**

**Curt. von Wedel, Jr., M. D., Oklahoma City.**

**Member of the Alumni Societies of Bellevue and Woman's Hospitals, New York City. Lecturer on Minor Surgery University Medical College.**

**Attending Surgeon Wesley Hospital.**

#### **ETIOLOGY—**

**Predisposing—**It is very commendable to both physician and layman that Osteomyelitis is getting to be quite an infrequent condition both in private practice and in the surgical wards of large hospitals, and this because of efficient prophylaxis.

It is most often caused by infection of the general blood stream through boils, surface infections, tonsils, acute exanthemata and the feeding of infants from mothers infected during the puerperal period, may also be caused by direct external means. Cold and exposure are cited to be marked predisposing causes. Localization of the infection is greatly predisposed to by trauma extensive or very moderate.

**Age—**Most frequent between the ages of fourteen and twenty-one, rarely over the latter age.

Sex—Male, three to one.

Selection—Tibia, either extremity,

Femur, lower extremity.

Homan, of Boston, says that the upper extremity of the femur is most frequently affected.

Mode of infection—Either by general blood stream or by external means.

Exciting—Staphylo-coccus pyogenes aureus.

Strepto-coccus,

Pneumo-coccus,

Typhoid Bacillus.

### Physiology of Infection.

Lexnor believes that the general frequency of infection near the epiphyseal line is due to peculiarities of the blood supply of long bones. He has shown that there are three groups of arteries supplying long bones. Epyphyseal, metaphyseal and diaphyseal. The diapho-epiphyseal junction being supplied by the metaphyseal arteries which are terminal arteries, and bacteria laden emboli becoming lodged in the ends of these terminal vessels, we have the beginning of the infection at this point. Localization is also predisposed to, as before stated, by trauma which causes minute hemorrhages giving rise to an excellent culture media for the germs. There has been much discussion whether the origin of the infection is in the red bonemarrow at the expanded ends of the bone, near the epiphysis, or in the yellow marrow at the extremities of the diaphysis. The latest authorities seem to think, however, that the primary point of infection is in the red marrow, which is in the immediate vicinity of the epiphysis and is supplied by the metaphyseal arteries. Because of the low resisting embryonic tissue in this region, produced by the exaggerated physiological activity present at this time of life, the adjacent medulla may be quickly involved.

### Pathology.

Implantation having taken place, we have formed a small localized area of infection, which may become absorbed or may break down with the formation of pus, destroying the red marrow and causing a subperiosteal abscess, or may, more rarely spread down through the medullary tissue, its upward progress being stopped by the epiphyseal cartilage. As the pus increases in amount, due to the breaking down of fat and cellular tissue, we have formed more or less pressure. This pressure may force emboli of either fat or pus into the open veins or lymphatics, causing involvement of other viscera or often death. As the process extends, we have more and



more of the red bone marrow breaking down and the increased accumulation of pus under the periosteum with its spread down and around the shaft of the bone. Its upward progress being retarded by the firm attachment of the periosteum to the epiphyseal cartilages, which explains the rarity of joint involvement in acute osteomyelitis. If the disease is allowed to continue and there is no spontaneous rupture with evacuation of the pus, we may have destruction of the ends of the diaphysis and its complete separation from the epiphysis. Together with this, the pus may burrow and cause the periosteum to be separated throughout its entire surface from the shaft, this occluding the nutrient artery causing the shaft to undergo coagulation necrosis and purulent degeneration. When the disease has progressed thus far, there is either death from sepsis, or evacuation of the pus by some means, leaving behind a condition of more or less extensive destruction of the shaft with a chronic discharging sinus.

### **Physiology of Regeneration.**

When the acute condition has subsided, there is set up a proliferation of cells with the formation of granulation tissue between healthy and dead bone with the production of the sequestrum. As we have stated early in this paper, regeneration of bone takes place mostly from the periosteum and from the membrane lining the medullary spaces. As the cells of the periosteum proliferate we have formed a more or less extensive shell around this piece of dead bone. Spontaneous cure may result if the process is arrested early in the disease, or if there has been no extensive destruction of the endostium with resulting formation of a sequestrum. But once a sequestrum has been formed, cure without the intervention of surgery is almost impossible.

### **Symptoms.**

Onset acute with chill and sudden sharp lancinating pain near the epiphyseal line. Temperature 103 to 104, pulse rapid, leucocyte count and the general symptoms of an acute infection. Pain is much increased and becomes very severe on pressure, especially if the pressure be continued. Redness and swelling appear over the infected area after two or three days. Condition may be multiple. Symptoms modified by location of disease and the involvement of other viscera by infected emboli.

### **Complications.**

Those of a general sepsis, endocarditis, pericarditis, multiple emboli to other bones or viscera thrombo phlebitis, acute nephritis, peritonitis, infection of adjacent joints, spontaneous fracture.

### **Diagnosis.**

There is no disease where mistakes are so often made or in which they are fraught with such disastrous results as in acute osteomyelitis. Many

children have gone to their graves or have become crippled for life through wanton neglect or ignorance on the part of the attending physician. If I emphasize nothing else in this paper, I wish to emphasize the fact that early diagnosis is absolutely essential to the welfare of your patient. When ever in doubt—explore, and do not confine your exploration to one epiphysis but remember the condition may be multiple. One of the most valuable single aids in diagnosis is the X-Ray. One should always be taken when conditions justify it. Its use is of especial value in chronic cases, as the extent of the sequestrum and the progress of repair may be easily ascertained.

The diagnosis must be made by careful examination, remembering that sudden sharp pain in the neighborhood of the epiphysis in children or early adult life is very characteristic of the disease.

### **Differential Diagnosis.**

From acute articular rheumatism. It is with this disease that osteomyelitis is so often confounded. Remembering the severity of the infection, the sudden sharp pain, the area of swelling being below the joint, the increased leucocyte count, the diagnosis should be easy.

From typhoid. Leucocyte count, Widal reaction.

Tubercular osteomyelitis invades epiphysis, onset not so severe. No leucocyte count.

From specific conditions history of case invades shaft, no leucocyte, moderate or low temperature.

### **Prognosis—As to Life.**

Depends upon early diagnosis and prompt surgical treatment. Six to seven per cent. die.

### **As to Cure.**

Depends almost entirely upon efficient surgical treatment.

### **Treatment.**

Should always be surgical.

General: That of sepsis, supportive, eliminate.

Local: Of the acute.

Whenever there is a question of doubt, exploration under local anesthesia should be made. As a rule, evidence of infection is easily found, but if there still exists any doubt, explore medullary cavity with a drill. When pus or necrotic tissue has been located, free incision into the periosteum should be made and if indicated a large enough slab of bone to in-

sure perfect drainage should be removed. One should remember, however, that bone is largely regenerated from periosteum and that the greater destruction of this membrane, the more extensive is the death of bone. If there be any extensive involvement it is far better to open in two or more places, as it not alone gives better drainage, but also destroys less periosteum. The too free use of the curette should be avoided, as it causes a destruction of the endosteum, upon whose integrity the internal surface of the cortex depends.

Never invade the epiphysis unless you are certain of its involvement. Complete excision of the infected area is to be condemned as it is too radical and often times only tends to spread the condition. Traction of the affected limb is advocated by many; while it is a valuable aid, that alone will not cure as drainage is absolutely essential.

Best dressing is dry sterile gauze. If moist be desired, use sterile water or a very mild anti-septic.

In favorable cases if the endosteum has not been destroyed to too great an extent, immediate regeneration will take place. If however, there has been any extensive degeneration of bone, we have a sub-acute condition with a discharging sinus left.

#### **Sub Acute of Chronic.**

The acute inflammation having subsided and a definite sequestrum having been formed, the surgeon faces the question whether to attack the condition then and there and remove the entire area of the involved bone, leaving behind only the hollow tube of periosteum, or allowing a heavy involucrum to form and then removing the sequestrum, leaving behind a deep trough of infected bone. All of the best authorities agree, with Nichol, that in the sub-acute condition it is best to remove all involved bone, leaving behind only the intact periosteum. This should be done only, however, when we have a natural support as the fibula would be in case of involvement of the tibia. In other locations, as in the femur, it is best to leave behind whenever possible, a strip of the cortex strong enough to prevent spontaneous fracture. It is in these latter cases that we must allow a sufficient involucrum to form. Never operate leaving an open trough or pocket in the bone, as it will stay open in spite of your best efforts to close it. Always remove enough bone to allow intact periosteum to close over the remaining portion. The use of bismuth paste has been much advocated of late years, especially by Carl Back. Personally we have found it to be very valuable. I believe that all artificial bone, wax, etc., should be abolished. In entire destruction of long bones, the use of its neighbor has been advocated, as in substituting the fibula for the tibia. Much also has been said about the employment of the long bones of living animals as substitutes.

*(Read before the Oklahoma County Medical Society March 8, 1912.)*



## EDITORIAL

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### OSTEOPATHY OUR NATIONAL FARCE.

We think that a scientific work from the pen of the founder of the osteopathic cult written as late as 1910 would contain some truths showing the grounds upon which so much misinformation and misconception has been scattered and would give a reason to a reasoning man for their crude positions on scientific subjects. Such, however, is not the case if a volume recently issued by A. T. Still entitled "Osteopathy Research and Practice" is to be believed.

Throughout this work, the only glimmer of intelligent reasoning definition and treatment of disease is the copious extracts from Dunglison's Medical Dictionary, which the "Professor" has used liberally and of course to the credit and enlightenment of the book. He waves away with one sweep of the hand the reasoning, deductions and final opinions of scientists after centuries of work and substitutes something of his own as the perfected article.

He states that malaria is caused by the rays of the sun becoming less perpendicular and being poured on the human body during these (summer) long days "and this I think so far exhausts the nerves of the spine that they become relaxed and give away." "As to the mosquito being the doctor's vaccinator of malarial poisons such philosophy and reasoning is not accepted as a demonstrated fact in this latitude."

Under the caption "Lung Diseases Prevented and Eradicated," he dodgers along virtually ignoring the subject, but gives an illuminating experience of his idea of the cause of dysentery; he states that in the war he camped a day and two nights near a battle field and that the gas and vapor coming from the dead bodies of the horses gave several hundred of the men dysentery.

Perhaps the most rascally assumption and dangerous theory advanced is that on vaccination. He advises the use on the arm and about the same place where we usually vaccinate our patients, the application of a small fly blister. He states that this wonderful discovery was made by his mother and that the application is a preventive not only of smallpox, but of measles, diphtheria, scarlet fever, leprosy and syphilis and other (infectious and contagious diseases). In the same breath he sagely states, "This is the twentieth century and our school was created to improve on past methods and theories."

The book throughout is replete with hasty conclusions based on the merest guess-work: he treated many cases of cerebrospinal meningitis many

years ago, they die one by one and in respectable numbers, then after giving one patient a large drink of whiskey and the patient's recovery he concludes that whiskey is the treatment, plus, of course the nerve manipulations; he concludes all this despite a plank in his platform declaiming against the use of drugs in the treatment of disease. Well perhaps he would say "whiskey is just whiskey." He concludes all this in the face of the clear definition of Dunglison which he carries at the masthead of his article.

Now of such bosh is made up this wonderful book from the master mind of the osteopathic cult. We could excuse an uneducated man, a man whose preliminary reasoning capacity had not been developed by systematic study in elementary branches for accepting this work and attempting to call it and use it as a science, but we do not believe any intelligent man starting out prejudiced in favor of no particular school or system of treatment of disease will accept the deductions of this work for a moment. We believe that many of the osteopathic practitioners do not accept this rot, but reserve for themselves a rational course of procedure in the face of certain emergencies, especially those connected with infectious and contagious diseases.

This great leader might look over thousands of miles of sand subject to the slanting rays of the fierce, burning sun that blisters impartially the deserts of Arizona, Arabia or Africa without encountering a single case of malaria yet after reading the book one wonders if that would shake the foundations of this "science" which concludes from personal observations that the sun's rays cause the malaria.

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### THE STATE BOARD HAS RESUMED RECIPROCITY.

A communication from Dr. John W. Duke, Secretary of the State Board of Medical Examiners announces that reciprocity is now in force between Oklahoma and the following states: Wisconsin, Michigan, Tennessee, North Carolina and West Virginia and the Osteopathic Boards of Minnesota, Missouri and Louisiana.

This will meet the approval of the mass of the medical profession who have never been able to see why a man qualified to practice in one state was not equally qualified in another and it will also serve a useful purpose in eventually bringing about a universal registration and examination throughout the country. One must admit that this would be an ideal provision and that a man should not be required to pass an examination every time he crosses the state line for the purpose of changing his location. Another phase of the matter is that a universal rule as to the examination covering its scope, length and usefulness will probably tend to increase the standard of present requirements and will also eliminate the men who creep into the profession from states having less requirements than should be deemed proper.

## CLEAN UP TIME

The Local Boards of Health and Municipalities of Oklahoma should not forget that "a stitch in time saves nine" in the matter of cleaning up before hot weather begins, nor should we forget that it takes a long time to move the body politic in times of fancied security from disease.

The alleys, back yards, gutters and vacant lots of our towns are certainly the source of a decent part of our income and while it seems incomprehensible that we should throw away our income in part by advocating their being cleaned up, we are generally found advocating this measure and we will continue to remind the powers of the right steps to take in the way of sanitation and prevention of disease.

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## TWENTIETH ANNUAL MEETING, SHAWNEE, MAY 7, 8 AND 9, 1912.

### Proceedings of the House of Delegates and Council.

The House of Delegates was called to order May 7th, 8:00 p. m. by the president, Dr. Chas. L. Reeder. A Committee on Credentials composed of Drs. C. S. Bobo, A. D. Young and T. J. Slover was appointed. In the temporary absence of the secretary, Dr. W. C. Bradford, of Shawnee, read the minutes of the meeting at Muskogee, May 1911, which on proper motion were approved. A Committee on Resolutions composed of Drs. A. B. Leeds, N. H. Lindsay and H. M. Williams was appointed and a Committee on Necrology composed of Drs. J. S. Childs, J. W. Pollard and Wm. B. Newton. After announcing a meeting of the Council immediately following adjournment the House of Delegates adjourned until 8:00 a. m. May 8th.

### Meeting of the Council May 8, 1912.

A committee to audit the books of the Secretary-Treasurer was appointed as follows: Drs. P. P. Nesbitt, J. H. Barnes and A. B. Fair. Bills of Councillors for visiting county societies were presented and ordered paid.

A committee composed of Dr. R. V. Smith and J. A. Walker were appointed to draft a proposed amendment to the Constitution and By-Laws providing for the acceptance of white members only in the State Medical Association.

A bill of \$15.00 from Ambrister and McLemore for prosecution of a case before the State Board of Medical Examiners was ordered paid.

The auditing committee reported the books correct and that there was on hand in the Commercial National Bank, Muskogee, \$2,000.00 which was on time deposit at 4%.

Cash in bank and checks and cash on hand at annual meeting May 8, \$1,529.16. Total \$3,529.16.



It was moved, seconded and carried that the actual and necessary traveling expenses, consisting of hotel and transportation of the Secretary and Delegates to the annual meetings of the American Medical Association be paid.

**House of Delegates, May 8, 9:00 a. m. and General Meeting.**

The president, Dr. Chas. L. Reeder, in the chair.

The President: I desire to make the announcement that within the next fifteen or twenty minutes the Mayor of Shawnee will be here and officially open this convention. In the meantime it would facilitate matters if all the delegates coming in late or since last night would appear before the Credentials committee and all who have not registered with him or filed their credentials may do so in the next twenty minutes.

The invocation was delivered by Reverend J. H. Hall, Shawnee.

Honorable Frank P. Stearns, Mayor of Shawnee, said:

Doctors of the State of Oklahoma: I am not an orator and I think some of you doctors got in your work last night; we have an orator in Shawnee of whom we are very proud and he was to have been here this morning, but I understand he was in the hands of the doctors last night and he was laid out so they have put me in as a substitute.

I take pleasure in extending to you a welcome, and extend to you a Shawnee welcome, which means more than simple words; it means that this city is yours; that this city and its every pleasure is yours and at your disposal. We want to see that you have a good time while in the city and at the same time continue the great work you are carrying out; we know that there is lots to do, that you have lots to do and that you have a short time to do it in and for that reason we are not going to burden you with lengthy talks; we have only to say that the city is yours, that we turn the city over to you for the next two days and that there are no police or officers running at large. The city is yours. I have instructed the Chief of Police that for the time there is nothing doing.

We are glad to have you doctors among us. We are glad for you to see our city. We are glad for you to see that we have a city where we have built along the lines you like. We have built a little hospital we are proud of. We want you all to go out and see it. We will carry on a taxation to keep it up. We believe it is doing the purpose for which we builded it.

Another thing, we want to extend to you the freedom of the city, and want to say that your coming here broke up a revival conducted by Rev. Ball, but we are not going to hold that against you. We are going to start another one just as soon as you doctors get away.

Now if there is anything more you want, I am going to turn you over to Dr. Blickensderfer and Dr. Hughes and all these boys. They will see that

you are taken care of. If they make any mistakes we will chastise them after you get away.

Response by Dr. C. R. Day, Oklahoma City:

Mr. President and Members of the Oklahoma State Medical Association:

I am placed somewhat in a position similar to that of the Mayor of this city in his address of welcome to this organization, due to the fact that Dr. Howard was to have responded to this address, but he was not on hand. He promised yesterday evening that he would be here. When the train arrived at Oklahoma City and was ready to depart Dr. Howard had not shown up. In this respect I am reminded of an old darkey woman who worked in the home of a family in Lexington, Mo. The old darky woman said to the woman of the house one morning: "I wants to git off tomorrow. Sally Jones, my nex dohr nabor is gwine to git married at high noon and I wants to be there." Mrs. B. said all right, you can go to the wedding and return in the afternoon and do up your work. The time came and the old darkey woman left. At about four o'clock she returned. Mrs. B. said: "Auntie, how was the wedding?" The old darkey woman said: "You gist ought to have bin there. You never seed such a dinner—had fried chicken, stewed chicken, smothered chicken, and oh, them sweet taters. I tell you it was a fine dinner." "How was the bride dressed?" asked Mrs. B. "I was gist about to forgit that case I was thinking about that dinner. She was the cutest gal you ever seed. With dat white dress and that long white veil and them gloves and white shoes, she just looked killin'." "How was the groom dressed?" asked Mrs. B. "Now Mrs. B., what do you think, that trifling nigger never did show up."

That seems to be what has happened to us on this occasion. I believe most of us have visited Pottawatomie county and the city of Shawnee before. A great number of us have participated of their hospitality and even their mulligan before, and we realize what a trip to Shawnee means.

In saying to you that we are glad to be here is putting it mildly, and I believe I am voicing the sentiment of this Association when I say we are extremely glad to hear that the police are all shut up. When we attend this Association we want to be boys again, and it is necessary that police do not interfere with us in our attempts to be boys again.

In conclusion I will say that we appreciate your hospitality and the fact that the police will not interfere with any part of our program until we are out of the city.

#### **House of Delegates, May 9th, 1912.**

The president, Dr. C. L. Reeder, in the chair.

The President: I suggest that all delegates take the front seats and that those who are not delegates be seated in the rear.

The House will now come to order and we will hear the report of the Credentials committee. (This report was read, giving a list of the delegates entitled to seats and after considerable debate as to its acceptance motions and counter-motions a motion prevailed that it be accepted.)

Drs. J. S. Childs and W. L. Kendall were appointed tellers to assist the Secretary.

The preliminary balloting placed Dr. J. L. Shuler, Durant and J. A. Walker, Shawnee, before the body as candidates for President and the result of the ballot showed Dr. Shuler to have received thirty-two votes and Dr. Walker twenty-four.

The following Vice Presidents were elected:

First Vice President, J. A. Walker, Shawnee.

Second Vice President, J. M. Byrum, Shawnee.

Third Vice President, A. B. Fair, Frederick.

The present Secretary, Dr. Claude Thompson, Muskogee, was re-elected.

Vacancies in the Council by expiration of term were filled as follows:

First District, A. L. Blesh, Oklahoma City.

Fourth District, C. M. Maupin, Waurika.

Eighth District, Ira W. Robertson, Dustin.

Ninth District, H. P. Wilson, Wynnewood.

Delegate to the American Medical Association, 1913 and 1914, J. Hutchings White, Muskogee.

Alternate delegate, J. H. Barnes, Enid.

Enid was selected as the meeting place for 1913.

The following resolutions were offered by the Resolutions committee, all being signed by the committee, Drs. A. B. Leeds, N. H. Lindsay and H. M. Williams:

Be it resolved that the Oklahoma State Medical Association go on record as endorsing Owen Senate Bill No. 1 and furthermore we recommend that the Legislative committee take immediate steps to correct the misrepresentation now being made concerning the provisions of this bill.

Carried.

Be it resolved that the findings of the State Board of Health as published in the Monthly Bulletin be given a general publication throughout all the papers in the state.

Carried

Be it resolved that the Oklahoma State Medical Association go on record as favoring a reciprocity of registration with all the other states and an agitation for a National Board of Medical Examiners.

Carried.

Be it resolved that inasmuch as rumors have come to the attention of the Oklahoma State Medical Association that there are drug stores in the state dealing, illicitly and illegally, in the liquor traffic, we recommend that the State Board of Pharmacy take immediate steps to correct such evils if the same exist.

Carried.

Be it resolved that our councillors investigate the advisability of the establishment of a home for infirm, aged and worthy physicians and that the councillors report their findings to the Oklahoma State Medical Association at their next annual meeting or soon thereafter.

Carried.

Be it resolved that the Oklahoma State Medical Association go on record as favoring the establishment of state tubercular camps or colonies suitably located.

Carried.

Be it resolved that the Oklahoma State Medical Association go on record as favoring the establishment of a Bacteriological Station, in each county of the State, for the distribution of serum, antitoxin and vaccine, at a minimum cost to any one, and to the poor without any expense at all.

Carried.

Be it resolved that we recommend that the local County Medical society, entertaining the Oklahoma State Medical Association, at the time of the regular annual meeting, does not bear the expense of any banquets or amusement entertainments and be it further resolved that when such banquets or amusement entertainments are given that the expense be born by the individual members attending such banquets or amusement entertainments.

Carried.

Be it resolved that the section of the By-Laws and Constitution of the Oklahoma State Medical Association be amended to read: "The annual meeting shall begin on the last Tuesday of the month of April."

Lost.

Be it resolved that the By-Laws and Constitution of the Oklahoma State Medical Association be amended to read: "The organization of the



House of Delegates shall occur on the first day of the annual meeting and on that day the annual election of officers shall occur."

Carried.

Be it resolved that we recommend that the Councilors allow the actual traveling expenses to each and every regularly elected delegate of the Oklahoma State Medical Association to the annual meeting of the American Medical Association, who is in actual attendance.

Carried.

Be it resolved that the Oklahoma State Medical Association extend to the Honorable Lee Cruce, Governor, a vote of thanks for the hearty co-operation extended to this association, in attaining a higher medical standard in the State of Oklahoma.

Carried.

Be it resolved that Oklahoma State Medical Association extend to Dr. C. L. Reeder, our retiring president, a vote of thanks for his faithful and efficient services in the interests of our Association during the past year.

Carried.

Be it resolved that the Oklahoma State Medical Association extend a vote of thanks, first to Mayor Stearns for the hearty welcome and courteous treatment extended to our members; 2nd, to Mr. Chrisney for the courtesies extended to the Association, of the use of his buildings, and its many rooms, during the meeting; 3rd to the Eagle's lodge for the use of their magnificent hall and club rooms; 4th to the citizens of Shawnee for their hospitality, during our stay in their prosperous city.

Carried.

Be it resolved that the Oklahoma State Medical Association extend to the wives, daughters and sweethearts of the physicians of Shawnee a grateful vote of thanks for the magnificent and unexcelled entertainment provided for our visiting wives during their stay.

Carried.

Be it resolved that the Pottawatomie County Medical Society be extended a vote of thanks for the generous entertainment of the Oklahoma State Medical Association; for the successful way in which they have conducted our meeting and for their untiring efforts to provide for our comfort, pleasure and amusement, and be it further resolved that the spirit and fraternal feeling that is manifest in the Pottawatomie County Medical Society be exemplified throughout every county in the state.

Carried.

The following amendment to the Constitution and By-Laws was offered by Dr. G. A. Wall, Oklahoma City:

Resolved, that on and after the adoption of this amendment the officers of this society shall be elected by the general body.

**The Committee on Necrology reported as follows:**

Your Committee on Necrology begs to report: Whereas it has been the will of the Almighty God, the great Physician, to call from their earthly field of toil into the Great Beyond, the following of our brothers:

Dr. C. A. Turner, Garland, Haskell County.

Dr. J. B. Leake, Taloga, Dewey County.

Dr. Isaac Reece, Menard, Cherokee County.

Dr. A. J. Bradley, Albany, Bryan County.

Dr. Bertha H. Campbell, Anadarko, Caddo County.

Be it resolved, That we, the Oklahoma State Medical Association, in body assembled, extend to the bereaved families of our departed brothers our condolence and sympathy and that these resolutions be spread on our minutes and a copy be sent to each of their families.

Your committee would recommend that the business of the Association be dispensed with for a period of ten minutes for the purpose of holding a short memorial service in memory of our deceased brothers.

Respectfully submitted.

J. W. POLLARD.

W. B. NEWTON.

J. S. CHILDS.

On the submission of this report the President called on Dr. Brodie for a short address in memory of the departed, after which he delivered a prayer.

The secretary offered a motion which was carried that the president appoint a committee of three members to look into the advisability of establishing a Physicians' Defense Fund in the State Medical Association and report at the next annual meeting.

Carried.

It was then moved, seconded and carried that we adjourn.

**REPORT OF EXAMINATION FOR LICENSES TO PRACTICE MEDICINE,  
Held April 9-11, at Oklahoma City, by the Oklahoma State Board of Medi-  
cal Examiners.**

T. Penell Martin, Ardmore, Meharry Medical College, 1911.....	72.9
Alfred J. Knight, Tulsa, Jefferson Medical College, 1906.....	90.3
James M. Bolger, Poteau, Louisville Medical College, 1886.....	72.6
Edward L. Miller, Craig, University Medical College (K. C.), 1911.....	78.4
James W. McMurray, Marion, O., Starling Medical College, 1897.....	78.6
James I. Reynolds, Seminole, Memphis Hos. Medical College, 1909.....	74.7
Jas. A. U. Carter, Chickasha, Meharry Medical College, 1910.....	78.5
Absalom A. Cooper, Carbon, Meharry Medical College, 1898.....	70.8
C. R. Williams, Bristow, Illinois Medical College, 1910.....	74.4
Chas. E. Smith, Muskogee, University of West Tennessee, 1911.....	73.9

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The following failed to make a passing grade:

No. 6. Hahnemann Med. Col. (K. C.), 1910.....	64.7
No. 7. Flint Med. Col., 1907.....	68.5
No. 14. University of West Tennessee, 1907.....	67.8
No. 15. Howard University, 1891.....	68.3
No. 16. College of P. & S. (Ark.), 1911.....	68.3

## NEW BOOKS

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### **DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEY.**

(Third Revised Edition.)

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Green, M. D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, D. D., Assistant Professor of Clinical Medicine, University and Bellevue Medical College. Third Revised Edition. Octavo of 639 pages. 339 illustrations. Philadelphia and London, W. B. Saunders Company, 1912. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

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### **SURGICAL CLINICS OF JOHN B. MURPHY, M. D., VOL. I, NO. II**

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume I Number II. Octavo of 291 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

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### **DIFFERENTIAL DIAGNOSIS.**

(Second Edition Revised.)

Differential Diagnosis. Presented through an analysis of 385 cases. By Richard C. Cabot, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second Edition. Octavo of 764 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1912. Cloth, \$5.50 net.

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### **HOME NURSE'S HANDBOOK OF PRACTICAL NURSING.**

Home Nurse's Handbook of Practical Nursing. A Manual for use in Home Nursing Classes, in Young Women's Christian Associations, in Schools for Girls and Young Women, and a working text-book for mothers, "practical" nurses, trained attendants, and all who have the responsibility of the home care of the sick. By Charlotte A. Aitkens, Author of "Hospital Management," "Hospital Training-School Methods," "Primary Studies for Nurses," "Clinical Studies for Nurses." 12mo of 276 pages, illustrated. Philadelphia and London; W. B. Saunders Company, 1912. Cloth, \$1.50 net.



**OFFICERS DIRECTORY, OKLAHOMA STATE MEDICAL ASSOCIATION  
SECTION CHAIRMEN.**

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Third Vice-President—A. B. Fair, Frederick.

Secretary—Claude A. Thompson, Muskogee.

Delegates to A. M. A.—W. E. Wright, Tulsa, 1912,

E. S. Lain, Oklahoma City, 1912-1913.

J. Hutchings White, Muskogee, 1913-1914.

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Frank Englehart, Oklahoma City; LeRoy Long, McAlester; Phillip F. Herod, Alva; W. LeRoy Bonnell, Chickasha; James O. Wharton, Duncan; Melvin Gray, Mountain View.

Next meeting—Oklahoma City, Lee-Huckins Hotel, July 9-11- 1912.

# ROSTER OF MEMBERS OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

Corrected up to May 20, 1912

## ADAIR COUNTY

Barnes, C. C.....	Westville	Robinson, C. M.....	Stilwell
Beard, D. A.....	Westville	Walters, C. A.....	Stilwell
Collins, B. F.....	Stilwell	Walker, C. F.....	Stilwell
Dickey, G. W.....	Westville	Wharton, J. L.....	Oaks
Lane, J. M.....	Westville	Woodruff, P. C.....	Stilwell
Robinson, Jas. A.....	Dutch Mills	Williams, T. S.....	Stilwell

## ALFALFA COUNTY

Bartlett, R. E.....	Aline	Kiebler, W. G.....	Goltry
Bassett, W. M.....	Jett	Lancaster, L. T.....	Cherokee
Bird, J. T.....	Ingersol	Lile, H. A.....	Aline
Burton, N. G.....	Carmen	Medaris, J. H.....	Helena
Clark, Z. J.....	Cherokee	Nickson, J. W.....	Loco
De Vry, J. W.....	Helena	Pence, R. W.....	Jett
Growden, S. B.....	Cherokee	Riechley, E. J.....	Lambert
Hibbard, J. S.....	Cherokee	Rhodes, C. A.....	Goltry

## ATOKA COUNTY

Briggs, T. H.....	Atoka	McCarely, T. H.....	Atoka
Fulton, J. S.....	Atoka	Stiewig, J. R.....	Tushka
Gardner, C. C.....	Atoka	Willour, L. S.....	Atoka

## BECKHAM COUNTY

Baker, J. C.....	Sayre	McComas, J. M.....	Elk City
Johnson, T. E.....	Elk City	Speed, H. K.....	Sayre
Pinnell, G.....	Mangum	Tedrowe, C. W.....	Elk City
McCreery, R. C.....	Mangum	Windle, O. N.....	Sayre

## BLAINE COUNTY

Barnett, J. S.....	Hitchcock	Doty, H. W.....	Homestead
Blender, H.....	Okeene	Leisure, J. B.....	Watonga
Browning, J. W.....	Geary	Murdoch, L. H.....	Okeene
Buchanan, M. W.....	Watonga	Stough, D. F.....	Geary
Campbell, J. L.....	Watonga	Tracy, C. M.....	Canton

## BRYAN COUNTY

Allen, J. R.....	Caddo	Jackman, F. M.....	Mead
Armstrong, D.....	Mead	Kay, J. H.....	Kenefick
Austin, W. G.....	Durant	Lively, C. O.....	Albany
Austin, J. L.....	Durant	Mead, E. L.....	Achille
Cain, P. L.....	Albany	MaCalib, D. C.....	Utica
Ellis, G. H.....	Hendrix	McArley, W. H.....	Colbert
Fuston, H. B.....	Blue	Park, J. F.....	Durant
Grassham, R. H.....	Caddo	Pate, J. D.....	Durant

Rapolee, H. E.....	Caddo	Wann, C. E.....	Durant
Rushing, G. M.....	Durant	Wells, A. J.....	Calera
Shuler, Jas. L.....	Durant	Works, W. L.....	Bokshito
Smith, J. B.....	Durant	Yeates, H. Wesley.....	Durant
Stringer, O. E.....	Achille	Yeiser, C. C.....	Colbert
Terrell, J. C.....	Durant		

**CADDO COUNTY**

Anderson, P. H.....	Anadarko	Hume, Chas. R.....	Anadarko
Bird, Jesse.....	Cement	Kerley, W. W.....	Anadarko
Blair, S.....	Apache	Lane, C. W.....	Miles, Wash.
Boyd, D. H.....	McAlister, Ariz.	McClure, P. L.....	Fort Cobb
Booth, W. E.....	Siekles	Putnem, Wm. B.....	Alfalfa
Brown, B. D.....	Apache	Rector, R. D.....	Anadarko
Brymer, W. G.....	Dewar	Sanders, P. L.....	Carnegie
Campbell, George W.....	Anadarko	Shoun, D. A.....	Albert
Colby, George B.....	Gracemont	Weiser, D. D.....	Alden
Dail, A. W.....	Cement	Westermeier, George W.....	Anadarko
Dinkler, F.....	Fort Cobb	Willard, A. J.....	Cyril
Downs, Edward W.....	Hinton	Williams, R. W.....	Anadarko
Edens, M. H.....	Verden	White, D. O.....	Knox, Ind.
Gill, W. W.....	Gracemont	Rendtorff, Walter.....	Anadarko
Hawn, W. T.....	Lookebo		

**CANADIAN COUNTY**

Aderhold, T. M.....	El Reno	Miller, W. R.....	Calumet
Arnold, C. D.....	El Reno	Muzzy, W. J.....	El Reno
Brown, H. C.....	Okarche	Richardson, D. P.....	Union City
Clark, F. H.....	El Reno	Riley, J. T.....	El Reno
Dever, H. A.....	El Reno	Ruhl, N. E.....	Piedmont
Fitzgareld, M.....	El Reno	Runkle, R. E.....	El Reno
Hatchett, J. A.....	El Reno	Sanger, S. S.....	Yukon
Hatcher, A. D.....	El Reno	Taylor, G. W.....	El Reno
Koons, R. F.....	El Reno	Tompkins, J. E.....	Yukon
Lynde, L. W.....	Okarche	True, A. I.....	El Reno
Martin, W. W.....	Yukon	Van Cleve, W. E.....	Darlington
Masters, H. C.....	Teddy	Wolffe, L. G.....	Okarche

**CARTER COUNTY**

Amerson, G. W.....	Milo	Hardy, Walter.....	Ardmore
Ballard, A. E.....	Lone Grove	Hathaway, W. G.....	Pooleville
Barnwell, J. T.....	Graham	Henry, Robert H.....	Ardmore
Boadway, F. W.....	Ardmore	Higgins, H. A.....	Springer
Bogie, W. T.....	Ardmore	McNees, J. C.....	Ardmore
Booth, T. S.....	Ardmore	Smith, J. H.....	Healdton
Gillispie, L. D.....	Springer	Sullivan, C. F.....	Lone Grove
Cox, J. L.....	Ardmore	Taylor, Dow.....	Woodford
Denham, T. N.....	Provence	Von Keller, F. P.....	Ardmore
Goodwin, G. E.....	Ardmore	Whitfield, James.....	Berwyn
Hargrove, J. H.....	Ardmore	Willard, Robert S.....	Brock

**COAL COUNTY**

Brown, W. E.....	Lehigh	Hume, J. S.....	Coalgate
Cates, Albert.....	Tupelo	Logan, W. A.....	Lehigh
Clark, J. B.....	Coalgate	Sadler, F. E.....	Coalgate
Goben, H. G.....	Lehigh	Wallace, W. B.....	Lehigh
Hipes, J. J.....	Philips	Wolford, H. F.....	Coalgate

**CHEROKEE COUNTY**

Allison, T. P.....	Tablequah	Hill, Israel.....	Peggs
Allison, J. S.....	Tablequah	Thompson, J. F.....	Tablequah
Bewley, J. D.....	Peggs	Peterson, C. A.....	Tablequah
Blake, W. G.....	Tablequah	Baird, A. A.....	Park Hill
Blake, Ed.....	Tablequah	Bond, T. J.....	Tablequah
Duckworth, J. F.....	Tablequah	Murray, R. L.....	Welling
McCurry, L. E.....	Tablequah		

**CHOCTAW COUNTY**

Wright, H. L.....	Hugo	Moore, J. D.....	Sawyer
Shull, R. J.....	Hugo	Miller, S. J.....	Hugo
Swearingin, C. H.....	Hugo	Johns, W. N.....	Hugo

**CLEVELAND COUNTY**

Womack, J. L.....	Moore	Ellison, Gayfree.....	Norman
Thaeker, Robert E.....	Lexington	Davis, J. A.....	Norman
Thurlow, A. A.....	Norman	Clifton, G. M.....	Norman
Hoshall, J. S.....	Franklin	Childs, H. C.....	Norman
Hirshfield, A. C.....	Norman	Capshaw, W. L.....	Norman
Griffin, D. W.....	Norman	Blachly, C. D.....	Norman
Erwin, F. B.....	Norman	Bobo, C. S.....	Norman

**COMANCHE COUNTY**

Brashear, Jackson.....	Lawton	Lewis, J. L.....	Lawton
Clark, M. T.....	Temple	Mitchell, E. Brent.....	Lawton
Dunlap, E. B.....	Lawton	Merideth, C. S.....	Lawton
Gibson, T. J.....	Lawton	Meyers, D. A.....	Lawton
Gooch, E. S.....	Lawton	Maleom, J. W.....	Lawton
Gooch, L. T.....	Lawton	Mead, W. B.....	Lawton
Gamble, J. F.....	Elgin	Shoemaker, Ferdinand.....	Lawton
Hues, Charlie P.....	Lawton	Care of U. S. Indian Agt., Anadarko	
House, C. F.....	Temple	Webb, G. O.....	Temple
Knee, L. C.....	Lawton	Barber, George Stanley.....	Lawton

**CRAIG COUNTY**

Adams, F. M.....	Vinita	Mitchell, R. L.....	Vinita
Bagby, Louis.....	Vinita	Staples, J. H. L.....	Bluejacket
Craig, J. W.....	Vinita	Stough, D. B.....	Vinita
Herron, A. W.....	Vinita	Walker, C. F.....	Grove
Hughson, F. L.....	Vinita	Woolard, Frank.....	Weleh



**CREEK COUNTY**

Ament, C. M.....	Sapulpa	McCallum, C. L.....	Sapulpa
Briney, H. W.....	Bristow	Rhodes, R. L.....	Mounds
Chauey, J. C.....	Sapulpa	Rutherford, Lafe.....	Sapulpa
Coppedge, O. S.....	Depew	Schwab, B. C.....	Sapulpa
Coppage, O. C.....	Bristow	Stafford, G. A.....	Kiefer
Croston, G. C.....	Sapulpa	Sweeney, R. M.....	Sapulpa
Garland, H. S.....	Sapulpa	Wells, J. M.....	Newby
Hoover, J. W.....	Sapulpa	Wetzel, George W.....	Sapulpa
Justice, H. B.....	Sapulpa	Wheeler, F. R.....	Manford
McAllister, J. S.....	Sapulpa		

**CUSTER COUNTY**

Basinger, W. I.....	Butler	McBurney, C. H.....	Clinton
Comer, M. C.....	Arapahoe	McCullough, Robert.....	Arapahoe
Davis, S. C.....	Weatherford	Murray, P. G.....	Thomas
Frizzell, J. T.....	Butler	Rogers, McLain.....	Clinton
Gossam, K. D.....	Custer City	Thomas, C. A.....	Clinton
Gordon, J. M.....	Weatherford	Tisdell, V. S.....	Hammon
Hinson, J. B.....	Thomas	White, N. P.....	Clinton
Lamb Ellis.....	Clinton	Whitacre, F. S.....	Weatherford
Marshall, N. M.....	Butler		

**DEWEY COUNTY**

Leatherrock, R. E.....	Putnam	Wallen, Frank.....	Leedy
Seba, W. E.....	Leedey		

**GARFIELD COUNTY**

Aitken, W. A.....	Enid	Jenkins, S. M.....	Enid
Baker, J. W.....	Enid	Lamerton, W. E.....	Enid
Barnes, J. H.....	Enid	Looper, S. A.....	Garber
Boyle, G. A.....	Enid	Lukens, C. J.....	Enid
Cotton, L. W.....	Enid	Mahoney, J. E.....	Enid
Davis, Frank P.....	Enid	Mayberry, S. N.....	Enid
Diemer, F. E.....	Enid	McKee, E. N.....	Enid
Francisco, J. W.....	Enid	McKenzie, Walton.....	Enid
Hudson, F. A.....	Enid	McKenzie, H. B.....	Enid

**GARVIN COUNTY**

Baker, R. L.....	Wynnewood	Patterson, P.....	Maysville
Branum, T. C.....	Pauls Valley	Pratt, C. M.....	Maysville
Calloway, J. R. Jr.....	Mescalero, N. M.	Ralston, Benj. W.....	Lindsay
Calloway, J. R., Sr.....	Pauls Valley	Shelton, J. M.....	Pauls Valley
Darst, John.....	Wynnewood	Shi, A. H.....	Stratford
Hailey, E. L.....	Stratford	Spangler, A. S.....	Wynnewood
Johnson, G. L.....	Pauls Valley	Struble, Andrew.....	Pauls Valley
Lain, E. H.....	Paoli	Sullivan, E.....	Maysville
Lindsay, J. K.....	Elmon City	Tucker, J. W.....	Purdy
Lindsay, N. H.....	Pauls Valley	Waller, L. T.....	Paoli
Matheney, J. C.....	Lindsay	Webster, M. M.....	Stratford
Morgan, John B.....	Foster	Wilson, H. P.....	Wynnewood
Morton, E. L.....	Hennepin	Wilson, S. W.....	Lindsay

**GRANT COUNTY**

Antle, H. C.....	Renfrow	Marin, H.....	Deer Creek
Huddle, W. I.....	Lamont	O'Rear, F.....	Jefferson
Hulen, F. P.....	Pondcreek	Widner, S. S.....	Jefferson
Lockwood, H. C.....	Medford		

**GREER COUNTY**

Dawson, W. D.....	Mangum	Holt, R. L.....	Mangum
DeArman, M. M.....	Mangum	Hopkins, S. W.....	Hollis
Dodson, T. J.....	Mangum	Jeter, O. R.....	Brinkman
Campbell, J. F.....	Mangum	Jones, J. E.....	Hollis
Collett, E. D.....	Hollis	Merideth, J. S., Route 1.....	Dike
Gain, O. O.....	Mangum	Neel, Ney.....	Mangum
Gannoway, C. B.....	Mangum	Pendergraft, W. C.....	Hollis

**GRADY COUNTY**

Ambrister, J. C.....	Chickasha	Leeds, A. B., 310½ Chickasha Ave., .....	Chickasha
Barry, William R.....	Bradley	Livermore, W. H.....	Chickasha
Baze, R. J.....	Chickasha	Marrs, S. O.....	Chickasha
Bledsoe, Martha.....	Chickasha	Padburg, J. M.....	Ninnekah
Brown, Charles P., W. O. W. Bldg., .....	Omaha, Neb	Peetrs, W. L.....	Chickasha
Cook, W. H., 225½ Chickasha Ave. ....	Chickasha	Penquite, Walter, 229½ Chickasha Ave., .....	Chickasha
Coulter, T. B.....	Chickasha	Stinson, J. E., 113½ S. 3rd.....	Chickasha
Downey, J. C.....	Chickasha	Thraillkill, G. H.....	Chickasha
Gerard, G. R.....	Ninnekah	Vann, Paul D.....	Chickasha
Gorden, R. J.....	Ninnekah	White, A. C.....	Chickasha
Hampton, P. J.....	Rush Springs	Winborn, L. H.....	Tuttle
Hume, R. R.....	Minco		

**HASKELL COUNTY**

Callaway, A. B.....	Stigler	Mitchell, S. E.....	Stigler
Culbertson, J.....	Whitefield	Turner, J. M.....	Hoyt
Davis, Ben.....	Kinta	Turner, T. B.....	Stigler
Hill, A. T.....	Tamaha	Thomas, Ernest.....	Lafayette
Johnson, Emmett.....	Kinta	Terrell, R. F.....	Stigler
Jones, R. E.....	Lequire		

**HUGHES COUNTY**

Atkins, W. D.....	Holdenville	Hamilton, S. H.....	Non
Butts, A. M.....	Holdenville	McPherson, W. G.....	Spauldin
Cagle, T. J.....	Wetumka	Melette, U. N.....	Holdenville
Davenport, A. L.....	Holdenville	Pope, A. J.....	Hanna
Evans, W. G.....	Stewart	Robertson, I. W.....	Dustin
Howell, H. A.....	Holdenville	Weeden, A. J.....	Sasakwa
Hughey, A. G.....	Holdenville	Williams, J. P.....	Holdenville

**JACKSON COUNTY.**

Buck, D. C.....	Eldorado	Rawls, S. P.....	Altus
Clarkson, W. H.....	Blair	Spears, C. G.....	Altus
Fox, Raymond H.....	Altus	Strother, S. P.....	Altus
Landrum, S. H.....	Altus	Sanderson, W. E.....	Altus
Lowery, Thos. A.....	Eldorado	Taylor, Harry R.....	Eldorado
Munn, J. A.....	Wilburton	Wilson, D. E.....	Elmer
May, J. W.....	Hedrick		

**JEFFERSON COUNTY**

Ashinhurst, T. E.....	Waurika	Lewis, A. R.....	Ryan
Browning, W. M.....	Hastings	Maupin, C. M.....	Waurika
Cranfield, A. G.....	Grady	Murphy, G. W.....	Addington
Derr, J. I.....	Waurika	Sutherland, L. B.....	Waurika
Ewing, F. W.....	Terral	Stephens, J. M.....	Hastings

**JOHNSON COUNTY**

Ballard, C. B.....	Mannsville	Looney, B. R.....	Mill Creek
Clark, Guy.....	Milburn	Looney, J. T.....	Tishomingo
Cottrell, W. P.....	Milburn	Stobaugh, F. B.....	Mannsville
Ellis, J. M.....	Wapanucka	Vannoy, W. W.....	Tishomingo
Kniseley, H. B.....	Tishomingo	White, F. A.....	Russett

**KIOWA COUNTY.**

Beasley, A.....	Hobart	Holland, A. W.....	Washington, D. C.
Bonham, J. M.....	Hobart	Loyd, H. C.....	Hobart
Dal, J. R.....	Hobart	Muller, J. A.....	Snyder
Gray, M.....	Mount View	McCoy, M. L.....	Hobart
Huffman, L. H.....	Hobart	Stewart, G. W.....	Hobart
Hathaway, A. H.....	Mount View	Wagoner, A. L.....	Hobart

**KINGFISHER COUNTY.**

Cavett, R. E.....	Keil	Gose, C. O.....	Hennessey
Cullum, A. B.....	Hennessey	Overstreet, J. A.....	Kingfisher
Fisk, C. W.....	Kingfisher	Rector, Newton.....	Hennessey

**LATIMER COUNTY.**

Dalby, H. L.....	Wilburton	Kilpatrick, Geo. A.....	Wilburton
Evans, E. L.....	Wilburton	McArthur, J. F.....	Wilburton
Horine, W. H.....	Wilburton	Rich, R. L.....	Red Oak
Kilpatrick, Garnett A.....	Wilburton	Talley, I. C.....	Red Oak

**LEFLORE COUNTY.**

Beckett, J. B.....	Spiro	Morrison, R. L.....	Poteau
Brown, W. W.....	Cameron	Morrison, G. A.....	Poteau
Hartshorne, W. O.....	Spiro	Shippley, E. E.....	Wister
Hardy, J. J.....	Poteau	Woodson, B. D.....	Monroe
Moore, M. O.....	Braden		

**LINCOLN COUNTY.**

Adams, J. W.....	Chandler	Marshall, A. M.....	Chandler
Bilby, J. F.....	Chandler	Morgan, C. M.....	Chandler
Davis, S. O.....	Chandler	Pendergraft, W. A.....	Carney
Huddleson, J. W.....	Davenport	Williams, H. M.....	Wellston
Hurlburt, E. F.....	Chandler	Wyman, F. W.....	Sac and Fox Agency

**LOGAN COUNTY.**

Barker, E. O.....	Guthrie	Phillips, Lewis.....	Seward
Cotteral, C. F.....	Guthrie	Richmond, H. C. T.....	Marshall
Cronk, E. F.....	Guthrie	Rhienhart, R. H.....	Meridias
Childers, A. G.....	Mulhall	Rucks, W. W.....	Guthrie
Duke, J. W.....	Guthrie	Rumsey, F. C.....	Marshall
Day, Lewis.....	Guthrie	Simmons, C. D.....	Orlando
Hahn, L. A.....	Guthrie	Stephens, David.....	Guthrie
Hamill, J. R.....	Guthrie	Smith, R. V.....	Guthrie
Hill, C. B.....	Guthrie	Underwood, E. L.....	Crescent
Melvin, E.....	Guthrie	Wachtel, J. B.....	Navina
Melvin, J. S.....	Guthrie	West, A. A.....	Guthrie
Newton, A. L.....	Guthrie	Overton, L. M.....	Guthrie
Petty, C. S.....	Guthrie		

**LOVE COUNTY.**

Autrey, D.....	Marietta	Gardner, R. A.....	Marietta
Batson, J. D.....	Marietta	Jackson, T. J.....	Marsden
Batson, W. V.....	Marietta	Looney, M. D.....	Burneyville
Beeler, C. A.....	Burneyville	Martin, A. E.....	Marietta
Crawley, J. J.....	Overbrook	Mathews, W. F.....	Bomar
Gardner, B. S.....	Marietta		

**MARSHALL COUNTY.**

Belt, M. D.....	Woodville	Haynie John A.....	Aylesworth
Blaylock, T. A.....	Madill	Haynie, W. D.....	Powell
Bray, A. H.....	Madill	Holland, J. L.....	Madill
Dickerson, J. F.....	Cumberland	Lewis, E. F.....	Kingston
Davis, W. L.....	Kingston	Robinson, P. F.....	Madill
Gaston, J. I.....	Kingston	Winston, S. P.....	McMillan

**MAYES COUNTY.**

Hollingsworth, J. E.....	Spavinaw	Tilly, G. W.....	Pryor
King, F. S.....	Pryor	White, S. C.....	Adair
Puckett, Carl.....	Pryor		

**MURRAY COUNTY.**

Adams, J. A.....	Sulphur	Powell, W. H.....	Palmer
Danley, J. W.....	Davis	Slover, J. T.....	Sulphur
Ponder, A. V.....	Sulphur		

**MUSKOGEE COUNTY.**

Aiken, S. W.....	Muskogee	Berry, W. D.....	Muskogee
Ballantine, H. T.....	Muskogee	Blakemore, Jesse Lee.....	Muskogee





**NOWATA COUNTY.**

Brookshire, J. E.....	Nowata	Lawson, D. M.....	Nowata
Collins, E. F.....	Nowata	Narin, Wm.....	Nowata
Collins, J. R.....	Nowata	Strother, L. T.....	Nowata
Howell, D. D.....	Nowata	Sudderth, J. P.....	Nowata
Huggard, J. B.....	South Coffeyville	Waters, George A.....	Lenapah
Hughes, Lawson.....	Lenapah		

**OKFUSKEE COUNTY.**

Griffith, W. C.....	Weleetka
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**OKLAHOMA COUNTY.**

Alford, J. N., Colcord Bldg. ....	Oklahoma City	De Meglio, Edward, 202 Basset Bldg.....	Oklahoma City
Andrews, Leila, Colcord Bldg.....	Oklahoma City	Dixon, W. E., Security Bldg.....	Oklahoma City
Barker, C. E., Amer. Natl. Bldg.....	Oklahoma City	Davenport, A. E., Insurance Bldg.....	Oklahoma City
Ballard, J. D.,.....	Oklahoma City	Dicken, W. E., State Natl. Bldg.....	Oklahoma City
Bailey, F. M., Amer. Natl. Bldg.....	Oklahoma City	Day, C. R., Security Bldg.....	Oklahoma City
Blesh, A. L., State Natl. Bldg.....	Oklahoma City	Davis, E. F., Colcord Bldg.....	Oklahoma City
Bolend, Rex G., Baum Bldg.....	Oklahoma City	Earnhart, E. G., 415 N. Harvey.....	Oklahoma City
Boyd, W. J., Security Bldg.....	Oklahoma City	Earnhart, C. E., 415 N. Harvey.....	Oklahoma City
Bradford, C. B., Lee Bldg.....	Oklahoma City	Ernstberger, L. J., State Natl. Bldg.....	Oklahoma City
Buchanan, T. A., Lee Building.....	Oklahoma City	Edwards, R. T., State Natl. Bldg.....	Oklahoma City
Buxton, L. H., Indiana Bldg.....	Oklahoma City	Finley, R. H., Patterson Bldg.....	Oklahoma City
Bevan, W. R., State Natl. Bldg.....	Oklahoma City	Fishman, C. J., Colcord Bldg.....	Oklahoma City
Ballard, C. N., Colcord Bldg.....	Oklahoma City	Flesher, T. H. ....	Edmond,
Coley, A. J., Concord Building.....	Oklahoma City	Ferguson, C. D., St. Natl. Bldg.....	Oklahoma City
Clymer, C. E., Lee Building.....	Oklahoma City	Foster, R. L., Amer Natl. Bldg.....	Oklahoma City
Cloudman, H. H., Insurance Bldg.....	Oklahoma City	Fowler, W. A., Lee Bldg.....	Oklahoma City
Clement, W. R., Capitol Hill.....	Oklahoma City	Fullington, W. A., Security Bldg.....	Oklahoma City
Camp, F. K., Wesley Hospital.....	Oklahoma City	Ferguson, E. S., St. Natl. Bldg.....	Oklahoma City
Cunningham, S. R., Majestic Bldg.....	Oklahoma City	Gibson, H. H., Oklahoman Bldg.....	Oklahoma City
Dueote, J. R., Campbell Bldg.....	Oklahoma City	Gay, Ruth A., Majestic Bldg.....	Oklahoma City

Gotchy, E. D., St. Natl. Bldg.....	Moorman, L. J., St. Natl. Bldg.....
.....Oklahoma City	.....Oklahoma City
Haas, Karl.....Hurrah	Neely, J. M., Security Bldg.....
Hall, B. A., 1201½ N. Robinson	.....Oklahoma City
.....Oklahoma City	Pearce, W. E., City Hospital.....
Hall, J. F., 227½ W. Main.....	.....Oklahoma City
.....Oklahoma City	Phelan, J. R., Patterson Bldg.....
Hartford, J. S., Security Bldg.....	.....Oklahoma City
.....Oklahoma City	Pine, John S., Patterson Bldg.....
Howard, Harvey, Amer. Natl.	.....Oklahoma City
Bldg.....Oklahoma City	Rathbun, E. D., 1301 W. 22nd.....
Howard, R. M., Security Bldg.....	.....Oklahoma City
.....Oklahoma City	Rieley, J. W., 115 W. 5th.....
Hull, R. L., Amer. Natl. Bldg.....	.....Oklahoma City
.....Oklahoma City	Reed, Horace, St. Natl. Bldg.....
Johannes, A. D., Security Bldg.....	.....Oklahoma City
.....Oklahoma City	Riely, L. A., Amer. Natl. Bldg.....
Joyce, Chas. W. Joyce.....Wheatland	.....Oklahoma City
Jolly, W. J., Lee Bldg.....	Robinson, A. T.....Britton
.....Oklahoma City	Rolater, J. B., Coleord Bldg.....
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### SURGERY OF CHRONIC PELVIC INFLAMMATION.

R. M. Howard, M. D., Oklahoma City, Oklahoma.

It is not my purpose to bore you with a treatise on this subject as a whole, for that would necessitate the going over of a lot of text-book material which would prove tedious and profitless at this time; but to take up certain phases of the subject in which I have been interested, and to which I feel we should give more consideration.

By experience we have found that in a considerable proportion of the cases operated for chronic suppuration in the pelvis, the pus is sterile at the time of the operation. In a series of cases collected by Andrews (exclusive of tuberculosis)—634 cases in all—he found that bacteriological examination showed that 55 per cent. were sterile; 6 per cent. contained saprophytes; 22.5 per cent. of Gonococci 12 per cent. of Streptococci and Staphylococci; 2 per cent. of Pneumococci, and 2.5 per cent. Bacillus Coli Communi. A late collection by Hyde—2973 cases in all—(exclusive of tuberculosis), the bacteriological examination was approximately as follows: Sterile, 1998; gonococcus, 579; other bacteria and mixed infection, 456.

Long ago it was observed that of the cases subjected to abdominal section for pelvic suppuration, the old cases promptly recovered, usually without trouble, while the recent cases frequently developed a fatal peri-

tonitis; that is, that operation in the acute stage was far more dangerous than in the chronic stage. This fact, after having been clinically established, was the occasion for much discussion as the explanation was not at hand, and it seemed hard to believe that a long continuation of a debilitating process could put the patient in a better condition for a serious operation. One theory was that the immunity was largely due to the local effect on the adjacent peritoneum, reducing its absorptive powers and rendering it an unfit culture ground for bacteria. Another theory was that the body resistance became accustomed to the local irritation in the pelvis, and was consequently less disturbed by the added irritation of the operation, and that, also, owing to the long preparation of the body forces, they were better able to combat invasion. The explanation while crude to us, with our knowledge of the resistant function of the leukocytes and blood serum, and the antitoxin and vaccine theory, at the same time, contains truths which have only been verified and elucidated by this knowledge. The decisive step in the solution of the question was solved only when a systematic bacteriological examination of specimens removed was made. Then it was found that in a considerable number of the cases bacteria were absent. The reason immunity was conferred by waiting was because the bacteria had died and disintegrated, and the pus was sterile. This was the reason, in the old cases, that no bad results were obtained at times even when pus was free in the abdominal cavity. On the other hand, in the fresh cases, the bacteria were alive and active, and the least contamination frequently resulted in a fatal peritonitis. Another fact established in the old cases was that, even if bacteria were found, they were so attenuated that the pus was practically sterile.

It having been established that sterilization takes place within a reasonable time in all cases, the next problem is to determine the length of time required for automatic sterilization or attenuation, in the different classes of cases.

The persistence of virulence depends largely on the character of the infection. The two principal agents in chronic pelvic inflammatory trouble are the gonococcus and the streptococcus. These two differ widely in the persistence of virulence and also in certain clinical characteristics which can be distinguished before operation. For the purpose, then, of considering the persistence of virulence in a practical way, i. e. as a guide to treatment, the causes of chronic pelvic inflammation (tubercular excluded), may be divided into two classes: the gonococcic and the streptococcic. To be useful, the classification must be made before operation, that is, it must be a clinical rather than a bacteriological classification. Of course, there are other bacteria causing pelvic trouble, but in the present state of our knowledge they cannot, as a rule, be distinguished before operation; and, if they were distinguished, not enough knowledge has been accumulated to show the average persistence of virulence. Consequently, the endeavor should be to decide whether a given case belongs to the gonococcic or streptococcic class, ignoring for a time the fact that it may be due to other bacteria which, in point of virulence, belong between the two extremes.

How are we to distinguish between the two? Unfortunately, the bacteriological examination of the uterine, or urethral discharge, is of assistance in only a small proportion of cases, for, as a rule, the bacteria have disappeared. We have no characteristic reaction in these cases corresponding to the tuberculin reaction in tuberculosis; hence we must depend

on the clinical manifestations before operation. Fortunately the gonococcal and streptococcal cases differ usually in two particulars, namely: (1) Apparent cause of the trouble; and (2) the location of the lesion. As a rule these points may be settled and the case classified by an accurate inquiry into the onset of the trouble, and a careful bimanual examination. Uncertain cases are to be classed with one or the other as the evidence seems to warrant and then treated accordingly.

In the gonococcal class (clinical), the distinguishing points are, **first**, that the pelvic lesion is preceded by evidence of gonorrhea, or comes on apparently without cause; and **second**, that the trouble is located in the tube, or by extension, in the ovary, or adjacent peritoneum. Gonococci are the only germs that will spontaneously invade the healthy non-puerperal uterus, except, perhaps, in children; so that in adults a purulent inflammation beginning spontaneously in the vagina and extending into the uterus and out into the tubes, may be classed as almost certainly gonorrheal.

The history must be carefully taken, however, to exclude any traumatism in the form of miscarriage, or instrumentation. The probability of gonorrhea is increased if the patient gives a history of a leucorrhoea beginning a few weeks after marriage. Again, in a large number of cases of gonorrhea, the discharge is accompanied by a urethritis, resulting in a burning and irritation, and a frequent desire to urinate. Then, too, gonorrhea is frequently accompanied by abscesses of the vulvo-vaginal glands. Very seldom are these abscesses produced by any other infection. In these cases where the vaginal or uterine gonorrhea did not cause noticeable local disturbances, the pelvic suppuration began without apparent cause. A rather large percentage of gonorrheal cases will give such a history. In these cases we must be especially careful not to overlook an early miscarriage.

On examination a search should be made about the external genitals for signs of an old gonorrhea, such as red spots (maculae gonorrhoeae), or secretions pressed from the urethra, or vulvo-vaginal glands, which will show the presence of gonococci. Negative microscopic examinations do not, however, exclude a previous gonorrhea.

For a certain proportion of cases, the extension of the gonorrhea may have taken place into the uterus, and beyond, during the puerperium. Gonococci may be practically dormant in the lower part of the genital tract for a long time, and extend upward after labor or a miscarriage. Puerperal infection due to the gonococcus is nearly always mild, and such a history may help some, but there are other types of mild puerperal infections. In these puerperal cases, therefore, without other evidence of gonorrhea, the decision will rest upon the location of the lesion.

The extension of gonorrheal inflammation is almost invariably along the uterine mucosa into the tubes. Gonococci very seldom, if ever, extend through the uterine wall into the para-uterine tissue. Steinschneider and Schaefer injected pure culture of gonococci into connective tissue, with no decided inflammatory result following. The characteristic lesion of gonorrhea in the pelvis is pyosalpinx, with or without oophoritis and pelvic peritonitis.

The majority of pus tubes are due to gonorrhea, known or unknown, as we know that gonococci often die in a short time, so it is probable that most of the sterile cases originated from the gonococcus.



Crossen, in a recent paper bearing on this subject, cites a series of cases tabulated from his own work and those others, and shows that where the two clinical signs agreed, the bacteriological examination of the pus either showed the presence of gonococci or the absence of bacteria, with the exception of one case, in which the pneumococcus was demonstrated. In the series where the two points did not agree there were various bacteriological findings. In the uncertain cases the location of the lesion was principally depended on for the classification. A marked tubo-ovarian mass, without parametrial involvement, except in clearly puerperal cases, admitted the case to this class, and in no instance did such a case show streptococci.

In clearly gonococcic cases the germs are usually attenuated or absent in from two to four months from the onset of the trouble. It is wise, then, in these cases to wait for this to take place, as abdominal operation then becomes safe, or may be avoided entirely in a certain number of cases. Active gonorrheal pus is by no means harmless, and operation done early may result in a general peritonitis and death, or a local peritonitis with adhesions and their various sequelae; or even of dissemination through the system, resulting in an involvement of joints and the endocardium.

In the streptococcic cases (clinical), the distinguishing characteristics are, again: First, the apparent cause of the trouble; and second, the location of the lesion. Nearly all streptococcic inflammatory trouble in the pelvis can be traced to sepsis following labor, or a miscarriage. In adults streptococci do not spontaneously penetrate the non-puerperal uterus, except where some trauma is done to the uterus, or some abnormal condition exists, as cancer, or some chronic inflammatory trouble, and unless a pelvic inflammatory trouble can be traced to some of the above causes, the infection is certainly not streptococcic. Care, therefore, must be taken in obtaining the history not to overlook these conditions. On the other hand, not all puerperal cases are streptococcal. About 25 per cent of puerperal infections are gonorrheal, but they are usually of a mild type, and subside quickly: but we must remember that some streptococcic cases are of a mild type, so that, aside from extreme evidence of gonorrhea, most dependence must be placed on the location of the trouble. Streptococcal lesions are usually parametrial, while gonococcal lesions are usually tubo-ovarian.

We should bear in mind, too, that one may be dealing with a **mixed infection**, which may cause both lesions in the same patient, so that extreme caution in puerperal cases must be used before making a classification.

A chronic lesion in the pelvis due to streptococci is almost invariably in the connective tissue. The streptococcus does not progress along the mucosa of the uterus, as does the gonococcus, but invades the wall of the uterus, and attacks the parametrium, and then the peritoneum. If streptococci do invade the tube, they probably pass out through the fimbriated extremity, and produce a fatal peritonitis. Consequently, in the streptococcic cases that survive the acute attack and become chronic, the lesion is almost always found in the parametrial connective tissue.

Whitesides and Walton tried to produce streptococcal salpingitis experimentally by injecting pure cultures of streptococci and also mixed cultures of streptococci and staphylococci into the uterus of rabbits. In no case did a salpingitis result. One case died of streptococcic septicemia; while the other developed a purulent vaginitis for a few days, and then recovered.

In bacteriological examinations in cases of pelvic inflammation where streptococci are found the lesion does not involve the tube alone. The cellular tissues are also infected. Other pus organisms cause parametrial masses, but not often, and as streptococci are usually the cause, every case presenting parametrial involvement should be placed in the streptococcal class until definitely proven otherwise.

The distinguishing characteristics of a parametrial mass are:

- 1st. Its situation in the connective tissue areas, usually in the broad ligaments.
- 2nd. Its low relation to the uterus.
- 3rd. Its intimate blending with the uterus.
- 4th. Its intimate blending with the pelvic wall; and
- 5th. Its hardness.

A tubo-ovarian mass, on the other hand, is distinguished by its being situated higher up, or, prolapsed into the cul-de-sac; by its not blending with the uterus or pelvic wall; by its presenting a groove between the mass and the uterus; by its rounded outline, and its lack of hardness.

A series of cases compiled by Crossen showed that where the trouble originated from labor, or abortion, and where there was present a well-marked parametritis, streptococci were almost always found.

Where the two points do not agree, then the principal weight should be given to the location of the lesion, and the uncertain cases classed with the streptococcal cases.

The virulence of the streptococcus persists indefinitely. Cases have been reported where they persisted for six and twelve years. Automatic sterilization of a streptococcal abscess is so rare that it is not counted on, and consequently a streptococcal mass in the pelvis is always dangerous, and abdominal section of same, at any time, is liable to be followed by a fatal peritonitis. The only safe way to operate for a streptococcal collection of pus in the pelvis is by the extraperitoneal route, preferably, the vaginal. Intraperitoneal operation in these cases should be done only when the patient's life is threatened by the severity of the inflammation, and when it is impossible to reach the mass in a less dangerous way.

I claim no originality for the points here presented, nor for some of the arguments used in presenting them to your consideration. Because of experiences I personally have had, and observations I have made, I am convinced that fatalities occur in the surgery of chronic pelvic infections which might be obviated if these few facts were more often discussed.

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The Chairman: Dr. Howard's paper is open for discussion, gentlemen.

Dr. Wall: The last part of the Doctor's paper was interesting to me. As I consider it, the diagnosis is the important part in pelvic inflammation. Any doctor can do the operating after he knows what is the matter. There are a great many ways open for pelvic infection for which there are different causes. We know that it is occasionally and often quite difficult to make a close diagnosis as to the cause of the infection, and that is certainly an important part to the patient, as well as to the doctor. No man

can be a safe operator who opens the abdomen without some knowledge of the cause of the infection, and so forth. There are different kinds of infection, of course. Streptococcal infection is the one that is likely to cause the most trouble, because it has been proven by men of experience that streptococci germs live on indefinitely in the tissues around the uterus. It may be difficult to ascertain whether the woman has the condition that we seek, but the main point is in the diagnosis.

Dr. Berry: I was interested in the paper and the gentlemen who discussed labor and when it is right or best to operate. In my opinion we have a good many patients killed by unnecessary operations along this line. The fellow that gets in there in the last stage is going to kill his patient. It is sometimes very difficult to make a diagnosis of this class. I will illustrate the point by relating a case that came up five weeks ago last night, when I was called to a neighboring town to see a case. In the examination I found a mass in the left pelvic cavity and a good deal of tenderness and a very good discharge. Fourteen months previous the woman had been confined. Her husband had infected her with gonococcal infection—this was proven by an examination of the infection. The woman had a temperature of 102. We made the diagnosis and I advised waiting until she passed through the period of cooling off. Incidentally, before we got through with this case the woman pointed out pains in the region of the gall bladder and on examination we found an elongated pear-shaped thing, and I believe we pronounced it merely a distended gall bladder as an incident to the case and passed it over as no matter to get us into trouble. I afterwards returned home and the next evening got a message that the woman had 103 temperature and was suffering with intense pain in the gall bladder and that I had better come prepared to operate on the gall bladder. So I got the train and went over and found that the pelvic trouble was secondary, and to make a long story short, I made an incision and took out sixty-nine gall stones, one  $3\frac{1}{8}$  inches in circumference. The peculiarities of this case were that the pelvic symptoms proven and the gall bladder had given no trouble. There was no pus in the gall bladder, but I made the incision large enough and put my hand into the pelvis and found membranous adhesions around in there. I did nothing to anything but the gall bladder and let the woman alone and in thirty-six hours her temperature was normal and has been since, and while she had a little pelvic tenderness for five or six days, has none now. I saw her attending physician a few days ago and he told me that trouble had disappeared. I cannot understand why her temperature would come from the gall bladder when it was not infected and when it is infected usually does not have a high temperature; and why should this temperature go down so rapidly when nothing was done with the pelvis, if this was the cause of the high temperature? It illustrates the fact that no case is subject to a snap-shot diagnosis and you should never operate pelvic infection until we see that it is the last resort and that it ought to be done. We do have these cases entirely recover without operation.

Dr. Blesh: It gives me great pleasure indeed to discuss this paper of Dr. Howard's since not only the subject but the author's treatment of the same is well worthy of it. Pelvic peritonitis is rare in the absence of conditions dependent largely upon the peculiarities of the gonococcus, that is to say a gonorrhoeal pelvic peritonitis. In my opinion the Fallopian tubes which are the atrium by which practically all infections reach the pelvic peritoneum, are rarely involved without the presence of one or more of the following conditions: (1) Curettage, (2) Abortion, (3) Labor



at term. Before coming to this session I took the pains to review our work along this line and there were but few instances in which the history did not show one or more of these factors to be present, it being understood of course that the necessary gonococci were resident in the tract, and indeed it is quite clear upon a moment's reflection why this is true. In using the curet, which now is quite too much the fashion, the physician opens the uterine ostium of the tube which is sealed in the case of pregnancy and often too as protective measure in endometritis. This offers an open pathway to the pelvis and in the high state of physiological activity incident to the pregnant state, the infection promptly follows until it drops into the pelvis from the fimbriated end. Moreover it seems to be the boast of many good operators to call attention to how thoroughly they curet the uterus giving the instrument an extra whirl or two around the tubal cornu. Now should the tube be infected and open this act tends to freshen and seal it if unfortunately the operator is successful in the maneuver and if it is sealed by nature as a protective measure he opens it to the entrance of the infection.

As stated above I reviewed all our cases of this trouble before coming and find a support for the above statements in fully 90 per cent of them. The fact that prostitutes are the most common sufferers from pelvic peritonitis has been urged as an argument against this view. In reply I would say that there is no class in whom abortions and the indiscriminate use of the curet is more common than here. Dr. Kerley, who is here present, will recall one case in support of the above contentions.

As to the time for operation in pelvic peritonitis I will merely say here that the same rules apply as are accepted elsewhere. That is do not operate or attempt to do so during the progress of a too active inflammation or you will often meet with disaster. Endeavor to move surgically when the differential blood count shows a falling line for then you will strike in with nature and the very stars in their courses will be fighting with you and you will be surprised at how mountains of pathological difficulties will melt away before you. The falling differential line indicates that the polymorphonuclear blood cells, the really active fighting factors, are out on the firing line, therefore not in the blood stream, hence co-operating with you. A more or less successful operation may be done at any time but the game is too much of a chance, no matter how skilful the operation. In this day our patient is indeed entitled to every safeguard that we can by the exercise of the most careful clinical judgment and the aid of the laboratory, throw about her. Again I thank the doctor for his most excellent paper.

Dr. Clark: I did not hear all that Dr. Howard read this morning, but from what I got one thing occurs to me, and that is that we are lax in our diagnosis. There are good men that know what to do, but the question is when to do it. Dr. Howard's paper dealt with the effect, and the thing we need to prepare for is to understand just what effect we will have, and that ought to be emphasized. I want to say that all gonococcal conditions do not call for immediate operative interference. That often leads to disastrous results. There appeared, in days gone by, an inclination to get into them as soon as possible, but that is not right. Another thing, or the one thing we ought to do, either ourselves, or have some one do for us is to make a differential blood diagnosis. We ought to wait until we can determine what that is. We ought to study very



carefully the conditions and at the instant that reaches eighty or better, if we ever intend to do anything for the patient that is the time. I believe the men that are doing that class of surgery today ought to be able to do that. The reports of the best men of today are all agreed on that one principal. At least that was so a few months ago. They agree we should study carefully the blood condition, make special note and at any moment eighty is reached if we ever expect to do anything for the patient we must do it then. That may conflict with statements made here, but that is as given by men of wide experience.

Dr. Jolly: I appreciated Dr. Howard's paper and I want to make some remarks about the discussion. I believe that operation, so far as the curet is concerned in gonococcal infection is disastrous. I believe we have pus tubes following those cases and where there has never been an abortion or childbirth. I have heard of cases during my practice of pus tubes not following either one. I do not know what per cent, but I do know it is without these three conditions mentioned.

The Chairman: If there is no further discussion I will ask Dr. Howard to close the discussion.

Dr. Howard: I thank the gentlemen for their kind discussion of the paper and in helping me bring out some points I was trying to make. My object in reading this paper was not to bring anything new before the association, but only to emphasize some of the points on the diagnosis of these conditions and show the importance of arriving at the diagnosis, not after the time of operation, but before the attempt to operate is made. We can divide our cases into two classes: the gonococci and streptococci. We will have other things producing trouble similar to these, but because of the fact that we do not know how long it takes for these organisms to become automatically destroyed it seems better to restrict to those two classes, because of the fact of the time.

It is important that we arrive at the diagnosis before bringing the patient to operation, especially a clinical diagnosis.

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### SYMPATHETIC OPHTHALMIA.

Edmund S. Ferguson, M. D., Oklahoma City, Oklahoma.

Sympathetic Ophthalmia, or transferred ophthalmitis, is an inflammation involving the iris, ciliary bodies, and choroid of one eye, following an inflammation at some previous time of the same parts in the other eye. This transferred inflammation may take place at any time from three weeks (one case reported as early as ten days) to forty years or more. Ophthalmologists have for many years been studying this interesting disease, only to be left in the dark as to its real cause and probable route of transference from one eye to the other.

Traumatism, in the region of the cornea-scleral junction, whether accidental or following an operation for glaucoma, cataract, discission, et cetera, is one of the chief causes. It is not simply the injury itself in the ciliary region, but a wound in this region which has become infected is more likely to produce sympathetic trouble than are similar wounds in other parts of the eye. Penetrating wounds, where the iris is prolapsed, or foreign bodies, such as pieces of steel, copper, stone or glass, remaining in the eye, are followed at times by attacks. Wounds through any part of the eye,

other than the cornea-scleral margin involving the iris and ciliary body, even though they are severe enough to produce traumatic cataract, rupture of choroid, etc., are not likely to produce sympathetic trouble. Tumors of the globe, particularly, melanoma-sarcoma, and cysticercus, have been given as causes, but this is probably doubtful. It has been found that an irido-cyclitis is always present in the exciting eye, hence, in all probability, an infection takes place at the time of the injury.

Just how this disease is transferred from one eye to the other is not understood. Various theories have been advanced only to be found insufficient upon experimental investigation. Hutchinson's theory that the infection was carried through the optic nerve, prevailed for some time, and owing to the anatomical fact of the crossed and mingled fibres of the two eyes at the chiasm, it seemed almost positive. It was found, however, that even though the optic nerve was severed, sympathetic trouble might still take place. This theory was also questioned because, if true, it would seem necessary for the inflammation to begin at the papilla or nerve head. This is not the case, so the theory of direct transmission through the nerve has been entirely abandoned. The next theory was that the disease was transmitted through the ciliary nerves because they directly supplied the uvea. This was questioned at once as there is no direct connection between the ciliary nerves of the two sides, and the only way for transmission through this route would be reflex. This may be true in sympathetic irritation as there is then no inflammatory condition present. To demonstrate the reflex act it is only necessary to get a foreign body in one eye and see how quickly the other sympathizes by lachrymation, and sometimes by photophobia. The accepted theory, today, is that the sympathetic inflammation is of bacterial origin, and the method of transmission is through the blood stream; these bacteria being only pathogenic in the uveal tract, as no other tissues of the body seem to be affected.

The bacteria has never been isolated, and research work has been handicapped owing to the impossibility, so far, of producing the sympathetic trouble in animals, and the inability of examining the sympathizing human eye in the early stages. Could we find a patient willing to sacrifice his only remaining eye at the beginning of the transference, much more light might be thrown upon this obscure disease. Romer insists that a careful examination of the blood in these patients should always be made, and it is probable that the invading bacteria will yet be located in the blood stream, unless it be proven that the transmission takes place through transmitted toxins, or products of bacteria, rather than by the bacteria themselves.

An irido cyclitis is always present in the eye which causes sympathetic trouble. This irido cyclitis is generally of plastic variety and practically always of traumatic origin. Of course, there are great numbers of cases of irido cyclitis which do not produce transferred ophthalmitis, hence the difficulty of reaching a decision as to whether or not an eye should be enucleated. In some cases the eye with primary inflammation may still retain some sight, though remaining tender indefinitely. When once the inflammation is transferred, enucleation of the exciting eye has little or no effect on the progress of the disease in the fellow eye. Frequently, if vision in the injured eye has not been entirely lost when the trouble in the other eye sets up, it is found to be the useful eye when inflammation in the sympathizing eye subsides. For this reason do not enucleate

an eye, with vision, after inflammation once is established in the other eye.

Fuchs has added much to our knowledge of the pathology of this affection. He found a dense infiltration of the uveal tract. The infiltration was mostly lymphocytes, small round cells with one nucleus and very little protoplasm. In this infiltration he also found large epithelial cells, with one nucleus, assembled in groups; and regular giant cells in all probability developed from the epithelial cells. The choroid is much thickened, and the inner surface often wrinkled; the whole uveal tract is infiltrated, but mostly in the vascular layer of the choroid. Fuchs was unable to demonstrate bacteria, but does not doubt their presence, and that instead of causing an acute suppuration, they create an inflammation which is transmitted through the circulation to the fellow eye.

In mild cases with photophobia; lachrymation deposits on the posterior surface of the cornea from irido-cyclitis; slight redness of the eyeball; posterior synechia, and cloudiness of the vitreous, the symptom may soon subside, leaving the eye almost as useful as before. Unfortunately, this favorable termination is rare. As a rule, the inflammation quickly spreads and becomes intense; the posterior adhesions increase, either producing a seclusion of the pupil, or a pupillary membrane is formed and the vision is very greatly reduced. At first there is an increased tension which varies greatly as the disease advances, ranging from a high glaucomatous stage to a very greatly reduced tension at the end of the attack. Cyclitic membranes form not only around the pupil and lens but also throughout the vitreous chamber and a general atrophy of the eyeball soon follows. In the early stages, before the occlusion or seclusion with the glaucomatous symptoms, which inevitably follow, there is not much pain, and the greatest complaint of the patient may be simply failing, or hazy vision. The course of the disease is tedious and constitutional symptoms such as quickened pulse, great thirst, and pallor, are present. Frequently there is an obstinate constipation. The sympathizing eye is usually lost even though recovery from the first attack encourages you. It is generally soon followed by another and another attack until it is finally lost, and, if the exciting eye is not entirely blind at the time of the onset of the inflammation, it may be, and likely will be, the better eye in the end.

In making a diagnosis in this disease, the history of the condition of the exciting eye will be of the greatest help, and will immediately arouse suspicion. Severe attacks of pain, with cloudiness of media, ciliary pain, and thickened iris—indicating infiltration in uveal tract, accompanying the train of symptoms, as outlined above, in the fellow eye, will soon convince you of the nature of the disease.

Remember in making a diagnosis, giving a prognosis, or in treatment of an inflamed eye, which may follow or accompany a violent inflammation in the other eye, that sympathetic inflammation is not to be feared in absolute glaucoma: in perforating serpent ulcers with staphyloma; or in pan-ophthalmitis and shrinking of the eyeball. This is important for the reason that you need not hurry an operation during the acute stage of these affections, fearing destruction of the remaining eye.

In the treatment you should consider the prevention first, and afterwards the cure, should the disease actually exist. In prophylaxis you should anticipate trouble from the nature of the injury or character of inflammation, in the primarily affected eye. Wounds in the region of the



ciliary bodies; foreign bodies remaining in the eye, or infections following operations at the limbus, which set up an irido-cyclitis and remain tender for any length of time; where vision is lost or partially so, should be removed, for should this immediate attack subside, months or years afterwards a sudden transference to the other eye may appear, and when once begun it is too late to enucleate the offending eye with any assurance of success. The deformity attendant on removal of an eye must not deter you when you are satisfied that there is danger, and you should shift the responsibility should your patient object to the carrying out of your advice.

When once the sympathetic inflammation has been established, treatment is much restricted and we have no specific. Absolute rest and darkness are especially essential. A close-fitting bandage continued for a long time is indicated. Gifford recommends very large doses of solieylate of soda, and, in the light of our present knowledge, this remedy probably does promise the best results. He claims that one grain for each pound of body weight can be given daily. As this remedy must be used for some time, the dosage must be determined by the tolerance of each individual case. Atropine should be used locally unless it produces increased irritation of the eye, or there is marked increase of tension; calomel internally, or innunction of mercury, seem to have beneficial effects. Produce free diaphoresis with either the vapor bath or pilocarpine. The general condition of the patient should be considered, and if debilitated, tonics should be administered.

In a certain number of cases some vision may be left after the attacks, in others, complete loss of vision, with phthisis bulbi results. In still other cases where there remains a complete occlusion of pupil and cataractous lens with fairly well preserved eye-ball, an operation may be tried. Still, iridectomy or iridotomy, with removal of lens, is very difficult, and rarely successful. It is not advisable to attempt an operation of any kind until the eye has remained absolutely quiescent for some time.

The serious nature of the disease presents to us grave responsibility in all injuries of the eye, particularly when that injury is in the region of the iris or ciliary bodies, or whenever a plastic iritis or iridoeylitis follows injury, or some one of the eye operations.

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### DISCUSSION.

Dr. Stookesberry:—I do not know as I have much to say, except that I enjoyed the paper. There are a great many points there of interest which have been brought out and which seem to me would help us in cases along this line if we will remember the points. The great trouble I have found I have never had a great number of these cases and what I have seen have gone to the bad, but I am glad to know that we are getting nearer to the conditions than before. I believe before very much longer we will attend to it more effectively. I do not know as I am capable of saying much along this line, as I have not had experience—except in hospital work—my private work has been very much limited. What I have seen has been along the line the doctor suggested in his paper.

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Dr. Barnes:—I want to emphasize one point the doctor made in his



paper in regard to prophylactics. I never had a case of my own, and those I have seen and heard of and in the hospital under the direction of some one else have been very unsatisfactory. I have never been able to find anything that did any good to sympathetic trouble. I have seen some cases treated and have carried out the treatment of mercury and salt injections and all those things, but they are all unsatisfactory. The point I want to emphasize is that we should use our efforts in getting the patient to remove the eye in those cases where we suspect sympathetic ophthalmia. The doctor brought out the point that we must take into consideration the degree and extent alone in the ciliary region, and the character of the wound has a great deal to do with that.

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Dr. Leeds:—If I understand it right I am the only general practitioner here tonight, and I really feel like I suppose Jesus Christ did when he was between the thieves—

Put him out!—Anon.

And I want to say the same thing my wife said when I read my paper to her: "If I understood more about the subject I would appreciate the paper better, but I know it is a good paper, because you could not write anything but a good one." So I feel that way about the doctor's paper.

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Dr. Newton:—I enjoyed the doctor's paper very much. I have had occasion to set up nights and study up on the subject. I had a case about three weeks ago that worried me very much. It was another strange case where a man suddenly regained vision after being blind thirty years. He was struck with a piece of wood thirty years ago and after that time was unable to see. He was struck on his head and his vision returned. He came to me soon after that and I saw what the trouble was. He had a dislocated cataractous lens, and I told him he ought to have something done for it. I did not insist strong enough to make him realize the condition, but I told him if he had any trouble to have something done immediately, and he came into my office three or four weeks ago and I asked him if he noticed any trouble in the eye, and he said at times the eye was a little sore and, as he expressed it, hot water ran out of it and he had an irritation in the eye, and I told him the condition and insisted that we make an effort to get out the dislocated lens, which I did, and then took the eye out on the second day after the operation for removing the lens. That the eye came out all right I believe is due to the fact that the inflammation had not reached a dangerous stage. As to the prophylactic treatment, it is not always an easy matter, regardless of how badly the eye is injured or damaged, to convince the patient to take it out. I had a case about four months ago when a man ran a small auger into his eye and to such an extent that the ball partially collapsed, and he would not have it taken out for a week. I think we should watch these points more closely in those dangerous wounds in that region where the vision is impaired beyond recovery and that we should insist on enucleation all the time. It is hard to get a patient to see that, though.

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Dr. Davis:—The question brings to my mind the fact that this is one of the gravest questions that will come up in our practice; the re-

sponsibility we have to assume in these injuries. The patient can still see out of the eye sometimes, but he has an injury of the lens and through the ciliary body and it is hard to tell him that he has to give up the eye. But I think it should be insisted on, because in these cases there is such a strong chance of it going wrong later on and the sound eye becoming affected and perhaps the injured eye, and that is the probability, will never be of any value. The doctor mentioned the case of the dislocated lens. It seems perhaps the best treatment, where the patient will consent to it, in a case of dislocation of the lens, to immediately enucleate. These nearly always result in sympathetic ophthalmia. And the same way with the retention of foreign bodies. If a foreign body is retained almost always there will be a shrinkage of the eye ball later on, and instead of keeping your patient under treatment for weeks or months, and then failing; it seems to me it is better to diagnose the case at once. In cases of this grave nature the enucleation should be made in order to save trouble later on.

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Dr. Wilson:—I believe I understood the doctor to say that after sympathetic ophthalmia has set in it was useless to remove the injured eye. I do not remember having had a case of that kind, but I think most of the authors agree that often they lose the eye after sympathetic ophthalmia has been set up by the injured eye. As regards prophylactics, when a case comes to me and I am reasonably sure the vision has been destroyed, I simply tell them the eye should be enucleated, and tell them why, and if they ask me if there is anything else to be done I tell them, "No; all I can do is to take the eye out of your head." If a doctor is positive that way most generally they will consent to have it done. I never have seen a case of bird shot wound in the eye, where it penetrated but what I said to take it out right now, and the same thing with most foreign bodies; but it seems like bird shot is more apt to produce sympathetic ophthalmia, and I notice it invariably destroys the sight. I make it a rule, if I am reasonably sure the eye is gone, to insist and demand that it be taken out, if I treat them and am responsible for them; otherwise they can go elsewhere. I heard of a doctor in New Orleans—a boy came in with a bird shot in the eye and he said: "I will remove it at three o'clock this afternoon." I asked him why he wanted to so early enucleate it, and he said: "I have never had a bird shot in the eye, but where they lost it, and I have never seen where they did not lose the other eye if the eye is not enucleated. I have seen them go twenty years and lose the other eye then." And he spoke especially of the importance of removing the eye when it is a bird shot wound. I had a man come to my office within thirty minutes after he was shot and as soon as he came I told him to take the eye out. He said he wanted to consult with a doctor in Oklahoma City first, and he did. I think the doctor was Dr. Ferguson here. I told him I would be glad if he did. He afterwards lost his eye. I appreciated the doctor's paper.

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Dr. Jenkins:—I am sorry I missed any of the paper. The part I did hear was very thorough and showed the doctor had given it a good deal of thought and attention and covered the ground very thoroughly, leaving nothing for us to say, any more than to report our individual experiences with the different cases we might have, which I think is the best part of an association, and a part that has given me a great deal of

pleasure, in connection with the paper. My experience has been so limited it would not be worth anything, and so I will not discuss it farther than to express my appreciation of the paper. In my opinion it has thoroughly covered the ground.

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Dr. McHenry:—I have nothing to add to the paper. It was very thorough and I enjoyed it very much. I have had two cases in the last year—not sympathetic ophthalmia, but cases that set me to thinking about sympathetic ophthalmia. One little girl had a penetration in the eye and coming through the iris to the pupil. I saw the case a few hours after the injury and advised enucleation, and by the next morning there was a great deal of inflammation in the entire eye ball. We did not enucleate for ten days, but about the sixth or seventh day it began to get so bad we took it out about the tenth day. An examination of the eye showed a very intense congestion and inflammation of the entire visual tract. Then I had a case where a child twenty-two months old fell from the second story of a hotel with a milk bottle in his hand. The bottle struck and broke and a piece of glass penetrated the eye, going through the edge of the lid and entering the eye ball just over the corneosclera, going about one-fourth inch into the cornea and into the sclera, and the child was injured considerably. I saw it about four hours after it happened. The doctor attending started to give it chloroform and after a little bit it nearly stopped breathing. He used about fifteen drops. In this case the child was hard to do anything with, crying a lot and would squeeze the eye down. The inflammation has entirely gone down—that was about six weeks ago—and the wound has gone down. I have explained to the parents the danger of having the injury there, but have not advised removing the eye. In the first case it was not hard to advise. But in a case like this, the inflammation subsiding and the eye apparently well in a two-year-old child, it is very hard to say to the parents, "Let's take the eye out." There is a good deal of vision in the eye. It is a little bit hard in those cases to know what to do. When there is a foreign body in the eye we know it is necessary to remove it. Dr. Wilson said a shot was the most destructive foreign body. I have been brought to believe that a copper cap is the most dangerous as a foreign body, and a bit of stone next.

Dr. Jenkins:—I want to ask Dr. McHenry a question: How long has it been since the case of the child cut with a milk bottle?

Dr. McHenry:—About six weeks.

Dr. Jenkins:—And the inflammation has subsided?

Dr. McHenry:—Yes, sir; entirely, and did within ten days.

Dr. Jenkins:—You are pretty well satisfied there is none of the bottle in the eye?

Dr. McHenry:—Yes, sir.

Dr. Jenkins:—If that was my case I would not be uneasy about it. If a foreign body was in there I would be uneasy, but I do not believe we have any trouble now.

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The Chairman:—I always appreciate Dr. Ferguson's paper; I have

met a good many injured eyes, and most always in the ciliary body, and I have not heard much of the sympathetic ophthalmia from the causes or the point the doctor brought out. I invariably insist on the eye coming out, and if they do not do that they can go elsewhere. As a rule none of the patients will last over ten days before they will submit to an operation—an enucleation.

About the worse case I have had, had some stone in the eye and a piece of can, and I have lost track of the case. I advised enucleation and it was refused. Most of the cornea was affected and it cut through the iris and into the lens and there were about seventeen pieces of stone into the boy's face and thirty-two into his body. He shot a rifle into a can of nitro-glycerin and it killed the boy in front of him. After a few days watching the eye I told them I would have nothing to do with it unless it was enucleated. That is the only case I had the experience with, but the last I heard of the case he was all right. I'll ask Dr. Ferguson to close.

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Dr. Ferguson:—I want to thank you for the discussion of the paper. I have not much to add. One thing I want to mention again and that is where there is danger, grave danger of sympathetic trouble to remove the eye. The difficulty in most cases is the dread of the individual of the deformity. The loss of the eye always deforms, and I do not think there is any surgical work in this line that I dread like removing an eye; not for the work itself, but for the deformity. When you can do surgical work and correct a deformity, it is a pleasure, but when you cause it then it is rather a hard task.

In the case of Dr. Newton's, where he had the dislocated lens following the injury, I think it was probably fortunate he performed the second operation, or removed the eye, for the inflammation might have been in the other eye at any time.

The question brought out by Dr. Wilson about the bird shot being probably the most dangerous foreign body in the eye: I believe he said he did not know why it should be, but they are dangerous. My opinion has always been that gun shot wounds in the eye were usually in the anterior part of the eye and in most of the cases the ciliary body is injured and a bird shot as a rule goes through one coat of the eye and remains in the eye as a foreign body. Either drops in the vitreous or imbeds in the inner coat of the eye. The most dangerous body is considered a piece of copper, probably from the nature of the wound in which those things are usually gotten.

Dr. Miller introduced a piece of copper into the eye of a monkey and perhaps a month or six weeks afterwards the eye did not show any signs of trouble. Dr. Davis was there afterwards and saw the same monkey and for several months there was no sign of trouble.

The case spoken of by Dr. McHenry of the child's injury by a milk bottle: I would consider that case out of danger. However, only for the reason that he did not have iridocyclitis.

One doctor claims to be able to tell from a microscopic examination of the eye in which the transference took place, whether there is a case of transferred ophthalmia, and without knowing the condition of the other eye.



I had the misfortune of seeing two cases injured with dynamite caps about a week ago. Children had picked them up on the railroad and put them on a stone and took a hammer and hit them and one little fellow was about two or three years old and the other one about six. They both had penetrating wounds in the eye in the corneosclera and intensely inflamed. Both of these cases should be watched closely because the chances are they will both develop into cases of sympathetic ophthalmia, and they should be watched.

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### HEMORRHOIDS.

By Ira W. Robertson, M. D., Dustin, Okla.

In Moses' time the people were instructed by the priests to prepare golden images of their Emi rods or Hemorrhoids, place them in the ark of the Lord and return the same a trespass offering to the Israelites from which they had taken it; this they did and were accordingly healed; but as we have neither Moses nor the prophets and the medical treatment is a failure, we are compelled to resort to some operative method for the relief of this condition.

My object in writing this paper is to try to show some of the objectional features of some of the more common operative methods that are practiced today. In the beginning I shall say that no operation in surgery has been performed as often and as many times with the amount of success as that for the relief of hemorrhoids, and when we take into consideration the qualifications of the many operators, the many and various methods practiced by the inexperienced, it's astonishing at the results obtained, and this record is more remarkable when we consider the various methods that are applied indiscriminately, regardless of the pathological condition, and yet the results are so brilliant that we have but little room for criticising any particular method or operator. However, there are two great principles that we should keep in mind; first, complete and permanent control of hemorrhage; second, the preserving of the function of the parts. If these two principles are kept in view, our results will be a success regardless of the operative method, but a glance at the literature in this field will bring to view so many methods, both old and new, that it seems impossible to adhere closely to these principles. The clamp and cautery fall short with but one exception, or rather, to one particular pathological condition, viz., in the old, long-standing cases where the pile-tumor is old and hypertrophied, where there is a thickening of the mucous membrane as well as the wall of the tumor and in addition a partial prolapse of the rectum, which is the condition in all old, long-standing cases, where the tumor comes down and out during defecation.

In this particular class the clamp and cautery is the ideal, for here you not only do your work with a reasonable amount of safety so far as hemorrhage is concerned, but the contraction as the result of the burn will help to take up the slack in this neighborhood and in this way relieve the partial prolapse; but in the young tender pile that bleeds so easily during defecation and is yet too young to be caught in the grasp of the sphincter is the one that gives us so much worry and dreaded post-operative hemorrhage.

The Pennington operation which I have been rather partial toward is a good one, especially in the originator's hands, but it does not always

assure us a permanent control of hemorrhage; besides, it leaves a large, raw surface.

The old-fashioned ligature, with the sloughing stump and the injective method, are only mentioned to be condemned.

The Whitehead operation is one I have never seen; in fact, I have heard it condemned by good surgeons, and even teachers, till I have not given it my attention.

After a scant review with some objections to the above mentioned methods, I want to say that the Pilcher method of operation has appealed to me over all others. First, for its ease and simplicity; second, for the assurance of permanently controlling the hemorrhage and for the preserving of the functions of the parts, and last, but very important, it gives the patient less post-operative pain and more comfort immediately afterwards than any method I know of. Before going into the description of this method let me say that asepsis or even antisepsis does not fulfill our expectations in rectal surgery. In other words, they are not of the same value in this field as they are elsewhere from the fact that our patient rarely dies and I doubt if it ever occurs from infection alone. It seems that if any part of the human body is immune to infection, it is the rectum, and if there is any part of the anatomy that can resist more abuse, traumatism, and rough handling and yet retain its full function than the rectum, I would like to know where it is. Our only dread is one or the other of the above named principles, viz., hemorrhage or loss of function. And as a safeguard to these I have adopted the Pilcher method.

The patient is prepared in the usual way. When the sphincter has been dilated and the hemorrhoid drawn down to the anal margin, the tumor is picked up by the most dependent part with the hemostat or thumb forceps. The tumor is now grasped with a narrow curved forcep parallel with the long axis of the rectum and tightly clamped. If there are but one or two tumors, the clamp forceps may be applied about the base of the pile, but if there are four or five tumors to deal with, we should not grasp more than about two-thirds of the tumor. After the pile has been clamped, a full curved Hagedorn needle armed with a No. 1, 10-day catgut is carried about one-eighth of an inch beyond the point of the clamp forcep through the mucous membrane and around the vessel that supplies the hemorrhoid and out a quarter of an inch from where it entered and tied. (The needle thread is not cut.) This suture secures the blood supply of the hemorrhoid and prevents subsequent hemorrhage. The pile-tumor is now cut away with curved scissors within an eighth of an inch of the clamp. A continued suture passes underneath the clamp and over it until the cut surface is all included. The forcep is then unlocked and withdrawn. A pair of blunt thumb forceps may be used here to invert or push in the edges of the cut surface as you tighten up the suture. In this way you obliterate nearly, if not all, the raw surface, which lessens the pain and prevents the parts from sticking, and promotes more rapid healing.

In the clamp and cautery, as well as in the Pennington method, the tampon dressing is recommended, which gives the patient more or less pain and discomfort and will have to be removed in about 48 hours, which is too soon for the parts to have healed. On removing the tampon I have seen secondary hemorrhage occur in both methods of operation, after apparently a perfect technique in the hands of good surgeons.

Dr. Pileher, of Brooklyn, says that after twelve years of experience he has not had either hemorrhage or severe wound infections following this method; the ease and simplicity of this method and its completeness as a surgical procedure commends it.

The after-treatment consists of an occasional suppository containing morphine  $\frac{1}{4}$  grain, extract hyoseyami 1 grain, and iodoform 3 grains, inserted in the rectum; a piece of gauze with a little carbolated vaseline or dusting powder is placed against the anus, cotton over this and retained in place with a T bandage. The external parts are washed daily and new dressings applied; the bowels are usually moved by the second day.

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### THE PRIVATE LABORATORY AS AN AID TO THE PHYSICIAN'S HOME STUDY.

By C. D. Blachly, B. S., M. D., Norman, Oklahoma.

In medicine, as in other branches of science, advancement is being made with lightning rapidity. Hardly a week passes without our journal's announcing some new advance or discovery. Much of this progress is being made through the agency of the scientific laboratory. For one to be able to apply much of this newly discovered knowledge, he must be familiarly with the principles on which it is based. For the intelligent application, in practice, of these new discoveries, it is often necessary to follow the exact methods used in their discovery. It is very difficult to get a clear knowledge of a thing by simply reading about it, and still more difficult to retain such knowledge. The discussion of subjects with others interested in them is helpful in study. This advantage is now being given to many of us through the weekly study courses of our county societies, but actual work with the things or similar things of which we read is imperative for the complete mastery of the knowledge gained.

While I have a great respect for my co-workers, still I cannot but feel that many of them are not taking advantage of the opportunities that today are within their grasp. To one who is founded in the science with which we are dealing, it is as amusing to read over the letters of many of the physicians who send materials to a pathological laboratory for examination as to read pages from "Bill Nye." To illustrate: "Is, in your opinion, the inclosed specimen a hook worm or a colon bacillus?" It was a bot fly larva. Or again: "Will you please examine the enclosed specimen of blood for malaria?" The blood in question was smeared over one of the physician's prescription blanks. These requests are absurd, but not unusual ones, and show a total lack of knowledge of the medical science.

We find scattered through the country a class of physicians who are afraid of the modern practitioners being "Too scientific." They really belong to the class of Ross and Mehl, so we need not give them serious consideration. The man who is too scientific in his practice is yet to be born.

Every physician worthy of the name needs at his hands a clinical laboratory sufficiently well equipped to make all the simple chemical and microscopic tests. He must have these if he expects to practice anything even half way like modern medicine. I am sorry to say that so far as my observation goes very few physicians are so equipped. Lack of funds is



the usual excuse, but as a rule the true reason is indifference. Most physicians will find it necessary to build up their laboratory piece-meal. Many of our men have on hands reagents for making ordinary urine tests, but few of these have them conveniently arranged. In equipping a laboratory the slogan should be, "Have things convenient." The laboratory should be kept clean and comfortable. It may be the physician's study room. Most reagents should be within the reach of the worker while he is seated at his table. The worker must train himself to keep things clean at the table where he is working. Plenty of water, plenty of clean cloth, and a place to put waste materials, are indispensable. Among the things needed are reagents for testing such materials as urine, blood and bile; a good compound microscope, such as sells for from \$75.00 to \$100.00; the ordinary dry stains, such as fuchsin, methylene blue, and eosin; plenty of reagent bottles; test tubes, etc. A Tallquist scale and haemocytometer are very useful. Many things such as heated stages for the microscope, incubators, centrifuges, and mechanical stages, can be manufactured if one will give his genius half a chance. For a laboratory table one about five feet long and thirty inches wide is convenient. The reagents may be arranged on small shelves at the back of the table. This table is large enough so that one may draw, read, or write while at the table.

The cost of such equipment as outlined should not run over \$125.00 or \$150.00.

Now as to books and manuals to be used as guides in our work: Let us first look through our Dorland's dictionary. We find it to contain under such heads as stains, reagents, and tests, a vast store of condensed information. We find in our text books on medicine many excellent directions for certain phases of laboratory work. Our pathologies and bacteriologies are full of technique. Of course many guides to clinical laboratory work are now published. We must not forget our medical journals. The A. M. A. is especially rich in such information and should be bound and in the physician's library. Mulford and Parke Davis occasionally get out leaflets giving technique for such things as determining the opsonic index or making vaccines. The U. S. government publishes circulars on technique now and then and will mail them free for the asking. A little search will bring plenty of such literature to our hands.

But now since we have our laboratory equipped and our guides in technique, what are we going to do? Where are we going to begin? Perhaps the best place for the novice is on the simple useful tests. These well performed may be lifesavers. He can take up something such as normal urine and subject it to all the various chemical tests to see how it behaves. After he has familiarized himself with the normal urine he can add such things as mucus, blood serum, bile, and sugar and apply the tests for these, comparing these reactions with the normal. With the microscope normal blood can be worked out, and the types of cells studied. At the same time such things as coagulation time can be investigated. The various ways of making blood smears can be mastered. The chief reason that most persons' technique is so poor in doing these things is that they never do enough of them to become expert. From these simple beginnings one can pass to the more difficult tests and experiments. The only way to really progress is to start out to do some definite thing and keep at it until it is accomplished. In such work a real student will keep notes of what he does. At times two or three weeks may elapse when one can give little or no time to his laboratory,



but if everything is always ready and he knows just what he is going to do when he again has an opportunity to take up this work, progress will be made. Work as here outlined supplementing one's reading will bridge over the chasm between theory and practice and broaden the vision of the practitioner. He can thus verify his reading with something tangible. As actual travel in connection with the text book study of geography gives the student a clearer knowledge of geography, so does actual laboratory work in connection with his reading give the physician a greater mastery of his science.

### **A PLEA FOR A MORE LIBERAL DIET IN TYPHOID FEVER.**

**Dr. A. H. Bungardt, Cordell, Oklahoma.**

Until the past few years, the question of diet has, as a rule, been considered of minor importance.

1835 marks the beginning of an increased diet in typhoid fever, when Graves revolutionized the diet problem.

Austin Flint in 1870 popularized the sweet milk diet, permitting about two quarts in twenty-four hours, the practice of which was followed for about thirty years. At the present period of prophylactic medicine, and surgery, begins the dawn of a most valuable assistant in allowing our patient suffering from typhoid fever a far more liberal diet, and if we are able to demonstrate it will do no harm in this particular disease, then to apply the same procedure in other wasting diseases will be quite acceptable.

Before deviating from the long tried starvation method, we must demonstrate that to increase the nourishment does no harm, and if substantiated, then to administer such quantities that will prevent the usual losses so commonly found in these cases, will be welcome. Remembering that there is a vast difference between properly nourishing and improperly over-feeding a patient.

The selection of the kind of nourishment is not a difficult one as a rule, and to be guided by the effect produced upon the patient is quite interesting. The questions that naturally present themselves are:

1. Should a patient suffering from typhoid fever have enough nourishment to at least balance the losses therefrom?
2. How much is necessary?
3. What kind of nourishment is best suited?
4. How administered?

As to whether a typhoid patient will permit much nourishment, we are confronted with the pathological conditions, produced by the fever, and by the so-called "toxic distention," and since the entire human mechanism is very much impaired, and the intestinal tract receives the brunt of the disease, it is also clear that the normal power of absorption is also below normal. The secretory organs perform their functions in a sub-normal manner and we find the characteristic bowel movement, and with a persistent tendency to the formation of gas.

*(Read at the Meeting of the Frisco System's Medical Society, at Springfield, Mo., May 13, 1912.)*

Since in typhoid fever we have the entire bowel contents in a liquid state and a constant absorption of same produces an auto-intoxication, if it were possible to exchange the infected material for an easily digestible form of liquid nourishment, we would eliminate to a large extent this condition, but since this is impossible, then the nearer we can approach this condition the better will be our patient. In other words, if the bowel contents of our patient is mixed with an easily digestible and concentrated form of nourishment and there is no untoward symptoms therefrom, why is not his chances for improvement better than one who has very little in the intestinal tract than the infected material that is found in these conditions? The dreaded hemorrhage and perforations are no more liable to occur than otherwise, and if such should happen, the patient is in much better condition to withstand the shock.

Concerning the question as to how much nourishment is necessary to balance the losses due to the fever and toxic destruction during the course of a case of typhoid fever, we know that this varies largely with the patient and severity of the disease, and that a loss of from one-fourth to one pound daily is not an unusual occurrence.

We read from Dr. Warren Coleman's article in the A. M. A. Journal, 1909, that a normal man at rest requires approximately fifteen calories for each pound of body weight and an additional twenty-five per cent is required to meet the febrile increase in heat production, thus making a total of twenty calories for each pound of body weight, or about 3000 calories for an individual weighing 150 pounds, in order to hold the patient from neither losing nor gaining. This being a minimum requirement, we should have an excess of this, depending on the absorptive powers of the individual. We find that patients do better if they are given 4000 or 4500 calories during the 24 hours and with a continual increase so long as the digestive powers are not overtaxed. Agreeing with Dr. Coleman that 3000 are required and in making an effort to administer same, we are confronted with the question as to what kind of nourishment should be selected. Should we select the time-tried buttermilk diet? We must (according to Freidenwald and Ruhrah) give our patient ten (10) quarts of buttermilk in twenty-four hours, since the food value of buttermilk is 320 calories per quart. This would be somewhat out of the question. A patient taking a glass of buttermilk every four hours, will take six glasses in twenty-four hours, and since a glass usually holds six ounces and never more than eight, he will take not more than 500, or about one-sixth of the amount required to balance the daily losses.

Should the once sweet milk diet be selected, and since the food value of sweet milk is 640 calories per quart, it would be necessary to give five quarts of sweet milk in the same length of time, in order to maintain the balance, but if he is given six glasses every twenty-four hours he will take three pints, the food value of which is 1000 calories, or one-third of the amount necessary.

Beef juice is of very little food value, amounting to about 450 calories per quart.

Omitting farther examples, it is readily seen that to administer 4000 or 5000 calories it is impossible to make use of the above examples alone, but to select a more concentrated form of nourishment, and to be given at regular intervals. One that requires very little effort of digestion,

causing no bowel disturbance, capable of producing as little gas as possible, agreeable to the patient, and one that can be taken at length without becoming tiresome.

The last five years we have found the following to agree with the greatest number of patients, varying the amount with the patient, and given within twenty-four hours:

6 to 9 raw eggs.....	420 to	540 Calories.
1 to 2 qts. sweet milk.....	650 to	1300 Calories.
2 to 6 oz. sugar of milk.....	240 to	700 Calories.
1 pint cream.....	1300 to	1300 Calories.
6 oz. jelatin.....	600 to	600 Calories.
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	3210	4440

Just a word regarding each article:

We select eggs because readily obtained and easily digested, having a food value of 70 calories for an egg weighing  $11\frac{1}{2}$  ounces.

Sweet milk in our hands is not at all an undesirable constituent since few patients dislike it; however, if curds are found in the stools, it must be discontinued or the quantity reduced; it does not produce tympanites, and the theory that it is a culture medium for typhoid fever has been exploded.

Carbohydrates protect body protein, better than any other food stuff, and a large proportion of energy can be supplied in this form, and since the sugar of milk is not so sweet, it is more readily taken. We have, as a rule, no more gas when using the sugar than without, but occasionally it produces vomiting or rather regurgitation of the nourishment, which will decrease immediately when the sugar is either stopped or a less amount is given.

In selecting butter, we are enabled to administer it in any of the broths, gruels, etc., that may be given, since the food value is about 225 calories per ounce.

Sweet cream is given for the same purpose, having a food value of 1300 per pint, and if a pint is given within twenty-four hours, it reaches far in protecting the losses of the body fat.

### Administration.

Before taking up the method of nourishing a patient, would like to repeat that one must keep constantly in mind that to properly nourish a patient and to improperly over-feed one are two very different things. Each patient should receive very careful attention for the first few days in order that a correct formula of nourishment may be selected, after which the remaining time there will be very little trouble. The severity of the disease, temperament, the likes and dislikes of the patient should be considered. To administer 3000 or 4000 calories the very first day would be a very grave error. The following plan seems to give the best results thus far: For the first one or two days the patient is given very little nourishment, the bowels are flushed several times in order to eliminate as thoroughly as possible the contents of the intestinal tract; this with the usual treatment of beginning typhoid fever finds the patient, as a rule,

in a fairly good condition to accept nourishment, to be gradually increased, until within the course of five or six days he will be taking enough to sustain the usual losses at least. If nourishment is given every two hours, beginning with 6 A. M. and giving the last at 8 P. M. and neither medicine nor nourishment during the night, if the patient rests well, thus making an effort to secure a good rest, making the above modified egg mixture a nucleus around which to build a gradual increasing nourishment and by giving it only at the hours of 6 A. M., 12 M., and 6 P. M. and other intervals, somewhat of a variety may be selected.

The eggs are best given raw, and if beat in a glass until the white and yolk are thoroughly mixed and the cream and sugar added and lastly the glass filled with milk, either sweet milk or buttermilk may be used, and to begin with the following: 1 egg, 2 oz. cream, 2 teaspoonsful of sugar of milk, add enough milk to fill the glass, will represent about 311 calories each feeding, and giving this three times daily would furnish 930 calories. If sweet milk be given twice, and by adding from two to three teaspoons full sugar of milk and from two to three ozs. of cream, we will furnish about 750 calories. If two feedings of broth are given, to which is added from one-half to one oz. of butter, we will add about 360 calories, and at the 8 o'clock nourishment if 6 ozs. of gelatin be given it will add about 600, thus making a total for the day of about 2600 calories. Should the above prove satisfactory for three days and a gradual increase of the above would be in order, the increase should be made of quality and very little quantity. In order to accomplish this, instead of using one egg, two may be used, the cream may be increased one oz., also the sugar of milk and sweet milk added to fill the glass. Should this agree with the patient for three days, and no untoward symptoms manifest, three eggs may be given in like manner with an addition of one ounce of sweet cream, and another slight increase of sugar. Thus at the end of the week the patient is taking:

3 raw eggs.....	210 calories
4 oz. cream.....	320 calories
6drams sugar.....	90 calories
2 oz. milk.....	40 calories
	<hr/>
	760 calories

or 760 calories given three times daily, or 2800 calories given in three, nine feedings to be given during the day.

In giving sweet milk two to four ozs. of cream may be added, also four to six drams of sugar of milk, thus adding to the food value 700 or 800 calories. If something in the way of a warm diet is given twice, we will have no trouble in furnishing butter amounting to 360 calories and lastly six ozs. gelatin at eight, thus we have supplied approximately 4000 calories. In administering the above diet the patient will tire of it less quickly if given in the above manner: the egg mixture may be given as egg nog, or frozen. The frozen mixture is a very pleasant form to administer, especially in children.

The condition of the bowels should receive careful attention; at no time should a patient be permitted to go longer than 12 hours without a bowel movement, and should be accomplished by giving an enemata. Should there be a tendency to the formation of much gas, the enemata should be given as often as necessary.



The careful cleansing of the mouth after each nourishment, is also of much importance. Nothing will cause a patient to refuse nourishment so quickly. The mouth should be as thoroughly cleansed as possible after each feeding, using the ordinary mouth cleansing solution that is used for this purpose.

### Conclusion.

The above arrangement of nourishment will prove satisfactory in the greatest number of cases. The course of the disease is, as a rule, much shorter; the typical pinched facial expression is seldom seen, the mind is not sluggish, the weight of the patient varies considerable, but it is a very common occurrence to find the weight of the patient the same as on entering the hospital, with an occasional increase of from two to ten pounds.

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### SUPPURATIVE PLEURISY.

Charles William Heitzman, M. D., Muskogee, Oklahoma.

Perhaps of all affections of the human body that belong to the territory which the Germans so well designate as "Grenzgebiet," the border land, those of the chest stand preeminently first. These border lands, for the welfare of human kind as well as for our profession, are being recognized more and more. If properly cultivated their recognition can only make the surgeons better doctors and the doctors more cognizant of surgical possibilities. No other field more than that of surgery of the chest can illustrate better the wisdom of the surgeon and doctor living together in harmony. No doubt many a case of pleurisy seems primary from a clinical standpoint, which is really not so. The disease antecedent to the pleurisy may be so slight as to present no symptoms and attract no attention. The pleurisy appears as an apparently independent disease and is the first thing which attracts notice to the previous existing affection. Exclusive of traumatic pleurisy resulting from such injuries as a penetrating thoracic wound, we know positively of only one form of pleurisy, viz., the rheumatic—which is primary. This is, from an aetiological point of view, most closely allied with acute articular rheumatism. In polyarthrititis it is not very exceptional to have pleurisy develop secondarily. In many cases the rheumatic affection attacks the pleura at first without any great involvement of the joints. Then follow articular trouble, endocarditis, and the like, confirming, or for the first time disclosing the aetiology of the attack. Whether still other pathogenic influences may produce primary pleurisy is not settled. Some cases of acute pleurisy setting in with high fever, we have felt justified in referring to diplococcus infection, as suggested by the association of herpes and other symptoms. In such instances it is scarcely possible to exclude with certainty the presence of a small focus of pneumonia. In genuine primary pleurisy the pathogenic germs must first enter the circulation and by that means reach the pleura. It is usually pretty easy to diagnose pleurisy. In most instances all that is required is to know how to auscultate and percuss, in other words, know how to elicit the physical signs which nearly always patients present. Still mistakes do occur, pneumonia with its circumscribed dullness on percussion is perhaps the most frequent, but with its crepitant rales and the characteristic rusty sputum, as well as increased vocal resonance should enable one to differentiate. Rarer diseases, more or less exceptional, such as cancer of the lung or pleuro pulmonary cancer may lead us astray, but

here exploratory puncture, hemoptysis, a rusty expectoration and occasionally the recognition of neoplastic elements in the sputum will exclude pleural effusion. Radioscopy is also of value in these cases. Another misleading condition of the pleural cavity is hydatid cyst of the lung. I have seen one such case. Diagnosis was made by the presence of the hooklets in the serum. Large abscesses of the liver, those that extend far upward and do at times open into the pleural cavity, may well simulate purulent pleurisy. Patches of pulmonary gangrene although characterized by well marked foetor of the breath and sputum is frequently diagnosed as suppurative pleurisy. Having established the diagnosis of pleural effusion the next proposition is, what kind of an effusion is present. As a rule cases of serous pleurisy do not give us as high a thermometer reading as in purulent pleurisy. Of course there are cases of suppurative pleurisy in which the temperature does not run high but this is not the rule, whereas when the effusion is sero fibrinous, in the absence of concomitant pulmonary lesions, the temperature remains low. The temperature chart of purulent pleurisy presents the usual appearance of fever accompanying foci of suppuration, wide oscillations low in the morning and high in the evening. This steeple temperature is of great importance in the diagnosis of purulent pleurisy. With regard to the oedema of the chest wall the diagnosis should be made long before the manifestation of this late sign. Only in very doubtful cases is it necessary to have recourse to exploratory puncture in order to determine the nature of the effusion. With the early state of tuberculosis or pleuro pulmonary cancer we may have a hemorrhagic pleurisy slow and insidious in its course many times coming as an operative surprise, being recognized only on operation. Doubtless exploratory puncture is of great assistance in these cases. Suppurative pleurisy is apt to supervene after pneumonia, and in the course of certain eruptive fevers such as smallpox, scarlatina and puerperal fever, in fact in the course of any grave infection; sore throat, influenza, etc. We must not be satisfied on the establishment of a diagnosis of purulent pleurisy, we must ascertain the nature of the pus which may be pneumococcic, streptococcic, staphylococcic, typhoid, tuberculous or a mixed infection. This element of the diagnosis is of importance because the prognosis differs according to the *materies morbi*. Pneumococcic empyema following a pneumonia does not as a rule provoke a marked rise of temperature. The pus in such cases is greenish with fibrinous flakes. The type of pleurisy that is apt to supervene in the course of puerperal infection is usually streptococcic and runs a rapid course, the patient is profoundly infected, the complexion is earthy and the temperature remains around 103 and 104 F., without pronounced remissions. Then, too, the effusion tends to be copious. Purulent pleurisy with typhoid bacilli comes on during an attack of typhoid fever and is easily diagnosed.

Tubercular subjects presenting apical lesions often times develop a pleurisy in most instances serous in the beginning but becoming purulent without any assignable reason. In some cases the pleurisy is purulent from the start. The concomitant pulmonary lesions associated with the tuberculous bacilli assists us in diagnosing these cases.

Diabetic patients are peculiarly liable to gangrenous pleurisy. This is a form of widespread gangrene of the lung with an effusion that is purulent from the start, as it is often a gaseous pleurisy, it may be accompanied by pneumothorax. This constitutes gaseous suppurative pleurisy consequent upon the pulmonary gangrene. Pleurisy due to mixed infections present no

characteristic features from a clinical point of view. We also meet with cases of foetid gaseous purulent pleurisy apart from the particular microbe involved. In these effusions we find anaerobic organisms whatever has been the port of entry of the microbe. The diagnosis is based on bacteriological examination of the pus, and also by the severity of the constitutional and functional symptoms. An exploratory or curative incision gives vent to much gas. As a rule the prognosis is very grave. The mildest variety of this form is that associated with the pneumococcus and it sometimes yields to one or two enacuvative punctures. These particular cases make an attempt toward spontaneous recovery by rupture of the cavity into a bronchus or the pus may escape, it is said, through an opening between the ribs, this latter must be a rather rare occurrence. Cases have been recorded in which it is claimed that the pus escaped in the lumbar region, but these instances must be very exceptional. Along with purulent pleurisy of the main cavity of the pleura we see some odd forms of encysted purulent pleurisy. These may be divided into two groups. First, the interlobar variety found opposite the first or second interlobar fissures. The diagnosis of this variety of pleurisy is rather difficult. Radiography shows a zone of shade corresponding to the situation of an interlobar fissure. This form of pleurisy is less serious than ordinary suppurative pleurisy because the pus is, as a rule, easily gotten rid of by vomica. Second, encysted pleurisy in the form of an abscess of the lower antero-lateral part of the thorax. Here we find one subcutaneous pocket communicating through a button hole orifice with the intra-pleural collection. I recently operated on a case of this sort. The patient, a woman thirty-seven years of age, complained of soreness in her right side. Examination revealed a fluctuating mass which was incised and the opening described above was found communicating with the pleura. Quite an amount of pus was discharged and the discharge continued for several weeks all healing but a small sinus, this sinus yielded to an injection of bismuth paste. These cases are some times called cold costal abscesses, but as a matter of fact we are dealing with encysted pleurises of the lower pleural cul de sac. The prognosis of suppurative pleurisy depends largely upon the causative microbe. Those patients suffering from the streptococcal type are profoundly infected and rarely recover. Typhoid pleurisy is recovered from as a rule. In suppurative pleurisy due to mixed infection the patients usually die, but the prognosis based on the variety of microbe is not mathematically correct. Tuberculous purulent pleurisy is usually fatal. They soon succumb and an operation simply hastens their end. From the intensity of the symptoms, however, we are often forced to operate. Another point that aggravates the prognosis in tuberculous purulent pleurisy is the co-existing pleural fistula due to the fact that after evacuation of the pleural contents the walls of the cavity cannot come in contact, that is to say, the rigid costal wall cannot follow the shrunken lung which is sclerosed and lies against the spinal column. These fistulae occur in about seventy-five per cent of these cases.

The proper and only treatment is an early pleurotomy, an incision of the sac. These patients being as a rule profoundly infected bear general anesthesia badly. Gas and oxygen in the hands of an expert may be used, but wherever possible local anesthesia is the one to be recommended. The actual operation of pleurotomy is simplicity itself. We cut through the soft parts of the intercostal space, following the upper border of the rib, avoiding the lower border where are the vessels and intercostal nerves. In order not to wound the diaphragm we do not go lower than the fifth or sixth intercostal space in the axillary line. The best point for incision, how-



ever, is retro-axillary four fingers breadth from the spinal column because it corresponds to the lower part of the pleural cavity when the patient is lying down and must, therefore, facilitate drainage. Of course the operator may elect to remove a portion of one or more ribs depending entirely upon his judgment, and it is almost the rule to resect a couple of inches of rib. Having evacuated the pus shall we irrigate the cavity? No, unless we are dealing with a fetid gangrenous pleurisy or in the presence of false membranes. Now as to drainage, which is important. All methods employed should have for their object a rapid and continuous evacuation of the pus secreted by the pleura, thus preventing the formation of a pleural fistula. Bulau's method stands as a type, consisting of continuous aspiration. This is performed as follows, after the exploratory puncture a small incision is made into the skin over the intercostal space and a small trocar is thrust into the pleural cavity. Having gotten rid of the greater part of the pus a rubber tube is substituted for the canula as a drain. This tube is fixed to the thorax by means of safety pins the free end is adapted to a rubber bulb which exerts a direct aspiratory action on the pleural contents. The method described by Eberts in *Annals of Surgery* 1910 and 1911 for the treatment of empyema by means of differential pressure is thus described. The air within the abscess cavity becomes negative during inspiration, and this tends to expand the collapsed lung. There is no odor in the sick room, the amount of discharge can be accurately gauged, and frequent dressings are unnecessary. The author makes a circular skin incision, excises the rib with Giglis' saw, and stops the cut ends with Horsley's paste. A moulded rubber tube having an upward curve, so as to prevent painful pressure on the diaphragm, is then introduced through a tapered rubber cone already in situ. The flange of the cone is fixed to the skin by means of strips of zinc oxide plaster. An oval felt pad smeared with zinc oxide ointment and covered with a square of dentist's rubber dam may be introduced between flange and the skin, thereby making the joint more secure. The tube connects with a glass bulb which serves as a collector for the discharge. Connecting with the lower end of the bulb is a valve to permit of exhaustion of the cavity and bulb. Between the bulb and chest wall is fixed, on tube, another valve which occludes tube while bulb is being changed. If the discharge is profuse capillary leakage may occur for the first few days but pneumothorax is absolutely prevented. Other means having the same object in view are used, as for example, the drainage tube is attached to a large empty bottle; a vacuum is maintained in the bottle by use of a suitable pump. In the treatment of the so called chronic cases of empyema especially those with persistent discharging sinuses the use of bismuth paste and of the bacterial vaccines are not to be forgotten. Likewise a whole series of operative measures have been advocated for the relief and cure of these patients, notably the different thoracoplastys, anterior, posterior, inferior and a combination of the preceding with multiple lateral resections as best represented perhaps by the operation of Estlander. The operation devised by Delorme in 1902 and known as pulmonary decortication, with various modifications, is now attracting considerable attention.

References not quoted in text: Strumpell, Maignlaire.



## A NEW WAY TO PRESERVE PATHOLOGICAL SPECIMENS.

Dr. W. D. Berry, Muskogee, Oklahoma.

All appreciate the importance of the study of gross anatomy and that the only way to have a clear understanding of the subject is by doing careful and persistent work in the dead room. No one has ever been able to give us an understanding of gross anatomy without our having an opportunity to see, handle, weigh and measure the various tissues as they normally exist. The same can be said of gross pathology; therefore our opportunities for examining and studying pathological specimens should in every way possible be facilitated. Anatomy is normal and is nearly always found typical, while on the other hand, pathology being abnormal, is seldom found typical, which naturally makes pathology more difficult to

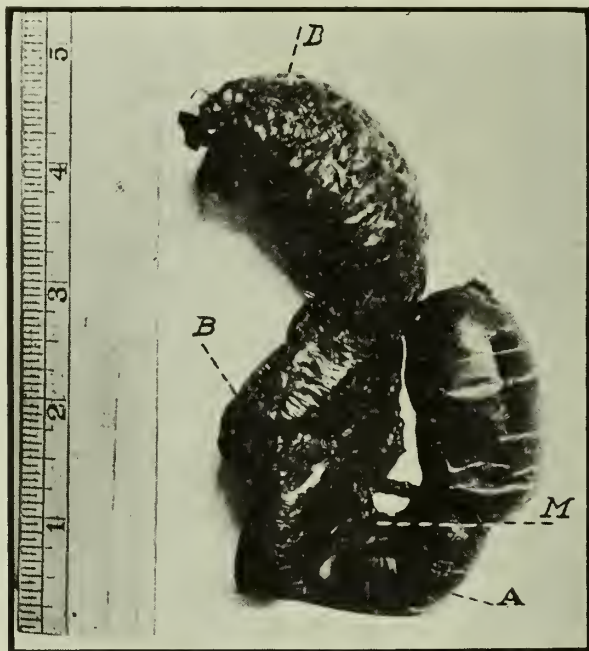


Fig. 1. Anterior view of section of bowel. A. Undeveloped portion of ileum. B. Caecum. D. Normal colon. M. A very short mesentery.

understand. To the operator his knowledge of the shape, size, color consistency, etc., of pathological specimens is just as important as his knowledge of his local anatomy. Various methods have been employed to preserve specimens, nearly all of which are more or less successful, so far as being able to keep them from disintegrating is concerned; which is all that is absolutely essential in a solid specimen, or in fact, any kind of a specimen where the microscopic pathology only is being considered, but if a hollow collospsible specimen is being studied in the gross or being photographed, it cannot be appreciated unless its shape, and size can be preserved, which, however, is very important where there is a faulty physiological development in connection with a pathological specimen, as in the case shown in Figure No. 1, which is a portion of the ileum, the caecum and part of the ascending colon, total length 11½ inches, which we removed to relieve an obstruction due to an intussusception of the ileum into the caecum



Fig. 2. Posterior view of Fig. 1. A. Straight, stiff and unnatural appearance of a normal appendix, hardened around an ordinary match.

in which we did a lateral anastomosis, the invaginated portion of the ileum, which is four inches in length is only  $\frac{5}{8}$  of an inch in diameter, the normal ileum above that point is  $1\frac{1}{8}$  inches in diameter. The mesentery of the undeveloped portion of the ileum is extremely short and but few blood vessels passed through it. The colon is much smaller at the junction of the caecum than normal, being only  $\frac{3}{4}$  of an inch in diameter. The normal caecum should be the largest portion of the large bowel which is only  $\frac{7}{8}$  of an inch in diameter in this case, whereas the colon four inches above the ileocecal junction is  $1\frac{3}{8}$  of an inch in diameter. The dimensions of this specimen are accurately stated. Figures No. 1 and No. 2 are cuts made from photographs showing it as it appeared in the abdominal cavity, after the invaginated portion of the bowel had been reduced.



Fig. 3. Cut from a photograph of ovarian cyst removed Dec. 14, 1911. Sack with contents weighed  $6\frac{1}{2}$  lbs.

Am stating these dimensions to show how accurate a specimen of this kind can be studied, if distended and preserved in the manner in which this was done, which is very simple and easy of accomplishing. First, the specimen should be cleansed by washing in plain water, then, put a very thin rubber tube on the inside and distend by filling the tube with air until the normal shape is assumed, which can be positively assured, as pressure will be equal at all points. In this specimen I used ordinary toy balloon, which is seen for sale on the streets, the only one I could get was green in color and that accounts for the dark picture. Had the balloon been lighter the photograph would have been lighter, as the color of the rubber shows through the specimen. Rubber glove fingers, etc., can be used to distend specimens; it would be an advantage, however, if we could get rubber tubes in various lengths so it would only be necessary to use one tube in each specimen. In this case I had to use two of the balloons, one in each end of the specimen, after distending and closing surface openings with a suture. I left it in a weak solution of formaldehyde (3%) for 14 hours, then washed with plain water and allowed to dry in open air, which it did in about 12 hours, and then remain in the open air ever afterwards. It now has the appearance of being well preserved and will remain the same size and shape as when hardened in the formaldehyde solution.

Figure No. 3 is a cut, half tone, from a photograph of an ovarian cyst, irregular in shape, measuring 10 inches in its largest diameter and  $4\frac{1}{2}$  inches in its shortest, which I distended in the same manner as above described six months ago. The rubber balloons have, of course, given away, but the tumor has remained the same shape and size as when hardened. Is in an excellent state of preservation, as dry as a drum head and has the appearance of keeping indefinitely.

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## EDITORIAL

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### AUTOTHERAPY IN GONORRHOEA.

Dr. Charles H. Duncan of New York has lately proposed something in the way of an innovation in the treatment of gonorrhoea that will likely cause some discussion not heretofore indulged in.

Autogenous vaccinees have been used with varying success in the treatment of gonorrhoeal conditions for some time, but this step in that direction is certainly a radical departure. Dr. Duncan simply feeds the patient his own pus or a filtrate of the same and cites some cases as evidence of its therapeutic value and believes that the treatment should be given a further trial.

It is doubtful that this treatment would prove popular even if it could be shown that it was remarkably successful for the natural repugnance of the patient to such treatment would become a very great obstacle and prevent him accepting the treatment. When this is considered it is likely that we will stick to the old and approved ways. We might sweeten up and disguise a little of the patient's pus and in the desperate and long drawn out cases slip him a pill of the mixture "unbeknownst," but it is likely that there would be no room for the physician with his patient in the same town if the patient ever heard about the therapeutic measure being used on him.

A full description of Dr. Duncan's theories and cases appear in the Medical Record for March 30, 1912.



## A MEETING OF STATE SECRETARIES.

The meeting of the American Medical Association at Atlantic City provided for a session of all State Secretaries to be held in Chicago, probably some time in October for the purpose of carrying out and putting into execution the proposed regulation of membership matters which have been for some time a trouble maker and a stumbling block in the Association's affairs. The result of this meeting will in all likelihood make every member of a county society a member of the American Medical Association, make him a member of the county society wherever he goes and answerable to the society of his residence for his acts and create a new body in the Association, which body will be known as Fellows of the A. M. A.

It has been proposed that all subscription to the Journal be made optional and not a requisite of membership as it now is and that what is now known as membership will in reality become Fellowship.

This will meet with the approval of a great many men in the profession who think that membership and subscription to the Journal should be independent matters. It should not hurt the Journal in the slightest for the place now filled by members will largely be filled by the newly created body.

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## THE ATLANTIC CITY MEETING.

The meeting of the American Medical Association this year was one of the largest from the standpoint of attendance ever held, the registration being 3,600.

The scientific sessions had the advantage of being attended by more than the usual number of the well known men of the profession and as the social end of the session was relegated to an unimportant plane the scientific sessions did not suffer as they sometimes do from outside diversions. Mr. Woodrow Wilson who addressed the general meeting was an added attraction and the remarkable vitality of the aged President, Dr. Abraham Jacobi, who presided over all meetings of the House of Delegates, was also a matter of universal comment. Dr. Jacobi is in his eighty-second year, but notwithstanding that, was able to endure the turmoil of the House of Delegates without apparent fatigue. The House of Delegates on several occasions was more than peppery and more than once the speakers became somewhat personal over the transactions.

The fight of the occasion centered on the re-election of Dr. M. L. Harris of Chicago to the Board of Trustees and was carried on by the successors of the old fight on Dr. Simmons. Dr. Harris has for years been one of the most active men in the Association's affairs and as resident trustee in Chicago is often called on to carry on the work of the Board. His services were acknowledged in a most emphatic and fitting manner in the speeches seconding his nomination and the delegates from almost every section of the United States attested their confidence in him by their approval of his candidacy.

The signal honor of the Presidency went to Dr. John A. Witherspoon of Nashville, Tennessee, one of the most highly respected and beloved men in the American Medical Profession today.

Minneapolis was selected for the 1913 meeting place.



### DO YOU HELP IN THIS MATTER?

Sometime ago a movement was started to influence the different state medical journals and those in sympathy with the propaganda for reform as conceived and carried out by the Council on Pharmacy and Chemistry of the American Medical Association to eliminate from the advertising pages all matter carried by houses not in keeping with the standards set by the Council.

Putting this policy into execution has caused the Journal of the Oklahoma State Medical Association to lose some of the financial support formerly enjoyed, for it is a fact that advertising sells the product and not the merits composing it, and they are as ready, willing and often more able to pay than a legitimate manufacturing chemist is.

In order to make the policy of the American Medical Association effective as it should be it will be necessary for the physicians of this state to co-operate with the Association and in order to do so you should begin yourself a process of elimination. You may like the drug or compound you now use, but if its manufacturer does not support the respectable and authoritative Council on Pharmacy you should show which side you sympathize with and demand that the detail man make good in his statements and if they do not correspond with the investigations of the Council drop them and use the ethical preparation.

The manufacturer should be shown that he cannot detail a preparation to the profession one day and the next advertise it in the daily papers or in other questionable manner. The Council has repeatedly shown that advertisers claiming an ethical standard and demanding the support of the ethical medical profession in the United States have been most flagrant violators of ethics. In England they have shown that on the operation of the Food and Drugs Act in the United States sweeping changes in the labels have been made in this country while the English label, with its extravagant claims remains as it was simply because there is no law to make them tell the truth about it.

There is another phase probably not thought of by very many members of the Association and that is the support given the Journal by the houses whose preparations you daily use. Very few of these houses carry advertising in the columns of the journal you own and publish; in some instances they are distinctly hostile to state medical journals and to the Council on Pharmacy and Chemistry of the American Medical Association. This hostility to the last named body can only be due to their desire to have no publicity on their affairs and to be allowed to go on about their way over the land making claims for their products that very few general practitioners are able to investigate and disprove or substantiate to their own satisfaction and the practitioner must either accept their statements or those of the Council. There is no gain in the Council refusing to give a product a clean bill of health to the medical profession if they are justly entitled to it and the Council does not do so. The Council is an impersonal investigator of the composition of products placed before it, it has no axes to grind, and no favors to give one manufacturer over another, all things being equal. With this in mind the profession should unite in the Council's support and demand that houses detailing products in Oklahoma support the journal with advertising if they do advertise to the profession in the southwest, otherwise we do not want the advertising. You may rest

assured that no advertisement will be accepted by your state journal whose manufacturers do not comply with all the essential demands and tests of the Council on Pharmacy and Chemistry of the American Medical Association as long as the present policy prevails, so when they come to you with something to sell just ask them who they advertise with and for their standing with your paid investigators.

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### PERSONAL NEWS.

Dr. and Mrs. C. J. Fishman of Oklahoma City will sail for Vienna in July and remain in Europe during the summer.

Dr. J. W. Kerley of Cordell has returned from a post graduate trip to New York City.

Dr. R. R. Smith of Muskogee has been doing some special work in Kansas City.

Dr. A. H. Bungardt of Cordell will spend July in the Chicago clinics.

The following Oklahoma physicians were in attendance at the Atlantic City meeting of the American Medical Association: E. S. Lain, Wm. Taylor, L. F. Watson, Oklahoma City; John W. Duke, Guthrie; W. E. Wright, Tulsa; C. A. Thompson, Muskogee.

Dr. A. B. Montgomery of Muskogee has returned from an extended visit to Northern points.

Dr. J. Hutchings White, of Muskogee will spend part of the summer in Boston doing work at the Harvard Medical School.

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### NEW BOOKS

THE PRACTICAL MEDICINE SERIES for the year 1912, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School.

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#### Volume I.

GENERAL MEDICINE, Edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School. Series 1912. Cloth, 404 pages, illustrated. Price of this volume, \$1.50. The price of the complete set of ten volumes issued annually from time to time during the year 1912, which comprise this series, will be \$10.00.

As heretofore stated in reviews touching this series of books, they are reviews of recent work of the medical profession with editorial comment where deemed proper by the editor. The scope of the present little volume may be understood when it is noted that eighty pages are devoted to the subject of tuberculosis alone, the remainder of the work being applied to other medical subjects.

## Volume II.

GENERAL SURGERY, Edited by John B. Murphy, A. M., M. D., LL. D., Professor of Surgery in the Northwestern University, Attending Surgeon and Chief of Staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital, Consulting Surgeon to Cook County Hospital and Alexian Brothers' Hospital, Chicago, Illinois. Series 1912. Cloth, 616 pages. Price \$2.00.

CHICAGO, THE YEAR BOOK PUBLISHERS, 180 North Dearborn Street. This is a very well illustrated book, more so than its predecessors of

**PITUITRIN IN DIFFICULT PARTURITION.**

Much attention is being given by the medical press of Germany and other European countries to the importance of Pituitrin as an oxytocic. The drug has been somewhat extensively used for the past two or three years, both here and abroad, chiefly, perhaps, as a hemostatic and heart stimulant. Now it is known to be of great value in uterine inertia, obstetricians in many of the German hospitals and elsewhere who have thoroughly tested it clinically, pronouncing it a truly remarkable oxytocic.

For the benefit of practitioners who may not be familiar with its origin and nature, it may be explained that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. Although the physiology of this gland is as yet largely speculative, there seems to be no doubt that it contains a substance or substances that exert a considerable influence over the metabolism and on the cardio-vascular system.

As bearing upon the value of Pituitrin in parturition, this expression from Dr. Emil Vogt, of the Royal Gynecological Clinic at Dresden, is significant:

"The oxytocic action of Pituitrin at this clinic was observed in over one hundred cases. After the rupture of the fetal membranes, in the second stage of labor, the physiologic effect of Pituitrin is the most pronounced; the contractions of the uterus follow each other much more rapidly and energetically, and the intervals between pains are decreased. Individually the pains are not more severe, so far as suffering is concerned, even in the case of sensitive women, than they would be in a normal delivery. In half of the cases the Pituitrin was administered in the second stage of labor. It failed only once; in all other instances its action was very pronounced. And although we encounter a great many cases of narrow pelvis in Dresden, from 40 to 50 per cent., it was not necessary to have recourse to forceps delivery in a single instance in which Pituitrin was employed. According to our experience, Pituitrin is the ideal oxytocic."

Pituitrin is manufactured by Parke, Davis & Co. It is supplied in one-ounce bottles and in glaseptic ampoules (for convenient hypodermic injection), each ampoule containing one cubic centimeter, or 16 minims, the usual dose.

Parke, Davis & Co. have just issued a pamphlet on Pituitrin as an oxytocic, in which is reprinted not only the extract from Dr. Vogt which appears in this article, but also a number of others from prominent German specialists and practitioners in which Pituitrin is highly extolled as a corrective of uterine inertia. Physicians will do well to write the company, addressing them at the home office in Detroit, for a copy of the pamphlet.



previous series; a considerable number of illustrations are fine cuts on hard paper, which add greatly to the attractiveness and value of the work. Its scope will be appreciated when it is noted that it contains 616 pages and that there will be a continuation of the work in another volume during this year. Throughout, the book is full of the newer things in the surgical world, and they are arranged in a systematic manner, rendering the subjects easy of access for the reader.

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**LABORATORY METHODS**, With Special Reference to the Needs of the General Practitioner, By B. G. R. Williams, M. D., Member of the Illinois State Medical Society, American Medical Association, Etc., assisted by E. G. C. Williams, M. D., Formerly Pathologist of Northern Michigan Hospital for the Insane, Traverse City, Michigan. With an introduction by Victor C. Vaughn, M. D., LL. D., Professor of Hygiene and Physiological Chemistry and Dean of the Department of Medicine and Surgery, University of Michigan, Ann Arbor, Michigan. Illustrated with Forty-three Engravings. Cloth, 204 pages, Price \$2.00.

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**ST. LOUIS, C. V. MOSBY COMPANY, 1912.** In the preparation of this work the authors sought to make a book that would be found of daily and practical use to the general practitioner who has neither the time nor opportunity to go into elaborate detail and expense in making his diagnostic work, and for this reason so often neglected in part or entirely. This book simplifies laboratory work to a very great extent and makes that which at first seems difficult to the beginner and busy man easy. The illustrations are applicable and simplify the text, and the authors, while brief, are thorough and complete in their efforts to make the work one that will be easily understood by the busy general practitioner who wishes to make his own laboratory and microscopic findings. Much of the detail and burdensome technic of the larger works on such subjects is eliminated and the more practical and daily needed information is included.

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**CENTRAL INDIANA HOSPITAL FOR THE INSANE.** Report from the Pathological Department and the Department of Clinical Psychiatry, Volume IV. Cloth, 344 pages, Issued by Wm. B. Burford, State Printer, Indianapolis, 1912, for free distribution.

This volume is a continuation of the very able work of Dr. George F. Edenharter, Superintendent, and the Staff of the Central Indiana Hospital for the Insane. The work contains cuts and charts illustrative of the subject matter and is very creditable. It shows a vast amount of work and preparation in its particular field and will be of value to the neurologist and psychiatrist.

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**FOR SALE**—One Golden Flame Waite and Bartlett X-Ray Coil Outfit; can be used on either direct or indirect current. Also one double catheterizing and one diagnosing Nitze Cystoscope. Address, 711-714 Surety Building, Muskogee.

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**FOR SALE**—At a bargain, Birtman Static machine, sixteen plate, with all accessories for making X-Ray pictures. Both hand and motor power. Cash or terms. J. M. Byrum, M. D., Shawnee.



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Next Meeting—Oklahoma City, Lee-Huckins Hotel, July 9-11-1912.

# THE JOURNAL

*of the*



## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, AUGUST, 1912

No. 3

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This is the Official Journal of the Oklahoma Medical Association. All communications should be addressed to the Journal of the Oklahoma State Medical Assn., English Block, Muskogee, Oklahoma.

### INDIGESTION.

A Symposium on this subject rendered at the annual meeting of the Oklahoma State Medical Association, in the section on General Medicine, Shawnee, May, 1912.

**Gastric Indigestion**, Frederick J. Wilkiemyer, Muskogee.

**Intestinal Indigestion**, F. W. Ewing, Terral.

**Enteroptosis as a Factor in Indigestion**, H. P. Wilson, Wynnewood.

**Digestive Disturbances of Gastric and Duodenal Ulcer**, A. L. Blesch, Oklahoma City.

**Diseases of the Gall-Bladder and of the Pancreas as Factors in Indigestion**, LeRoy Long, McAlester.

**Digestion as Affected by Chronic Appendicitis**, Millington Smith, Oklahoma City.

### GASTRIC INDIGESTION.

Fred J. Wilkiemyer, M. D., Muskogee, Oklahoma.

I wish to state in the very beginning that the above term is a misnomer; it is about as vague a term as biliousness, the lay idea of malaria, neurasthenia, hysteria, and the other myths of medicine, rapidly disappearing with the increasing knowledge of the pathology of disease. In other words, it is another term for limitation of thought. Our bodies are not made like

ships in water-tight compartments. We cannot derange one organ or function without also injuring others.

Experience has made us familiar with the discrepancy often existing between the extent of discoverable physical signs and the severity of constitutional manifestations in pulmonary tuberculosis. Often the physical signs are not extensive. When one thinks of pulmonary tuberculosis, one's mind immediately associates cough, considerable sputum, phthisical chest and features. On the contrary in the beginning, and it is in the beginning that we must diagnose tuberculosis to cure, the gastric symptoms predominate, and indeed the gastric symptoms may be the predominating symptoms up to the very late stages. J. B. Hawes' latest report on the tuberculosis patients at the M. G. H., and Boston Consumptive Hospital will show this most strikingly. Out of the 500 patients now in the various sanatoria in Massachusetts, over 75 per cent who are in the advanced or moderately advanced stages of the disease, 285 were told by the first physician whom they consulted that they did not have consumption, and of these 58 that they were run down and needed rest. These 500 patients visited 1,128 doctors in order to get a diagnosis. Tubercular peritonitis is a peculiarly imitative disease, and there is hardly any acute abdominal infection, which it may not in one of its unsuspected forms, simulate. Digestive disturbances are common, if not invariable, often one finds nothing on physical examination except a very dry skin and questionable abdominal fluid. There is no lesson of the human body which illustrates more graphically the importance and value of pains-taking investigation. Even with this aid a positive diagnosis cannot be made, but with this aid we can suspect where with less application we might overlook a family history of tuberculosis; a previous past history of cured or incised lymph node. In a woman a vagino-rectal examination with one finger in the vagina and the other in the rectum and noting whether any nodular thickening on rubbing together.

Next to tuberculosis gastro-enteroptosis is the most common of all diseases with symptoms most strikingly referable to the stomach. The disease or rather the condition is so common that I believe that the average physician comes in daily contact with them; Christian Scientists make up nine-tenths of them, and the remaining number are the staff of life of the quacks. They are the bete-noir of the unwary surgeon, or the surgeon with an eye only for some particular part of the abdominal cavity. Bear with me a while and I shall cite some cases.

**Case 1** came under my care in the summer of 1910 and had the following history: Married four years; wife of a city fireman; the evening of her honeymoon was taken suddenly ill while on board train; sent to Dr. Reynolds, the eminent gynecologist, who refused to operate; sent to Carney hospital and operated upon by the late Dr. John Munro, who did a retrouterine fixation of round ligaments; relief for about two months; again seized with gastric symptoms; operated upon by Dr. Barnes for floating kidney with relief for one year; operated upon by Dr. Fallon of Worcester, Mass., an exploratory operation, all organs found ptosed with the exception of the right kidney and the uterus; recovery without incident and remained well for 6 months; for past 6 months gastric attacks twice a month requiring morphine. Her physician has argued with her but to no avail; insists on an operation; her husband utterly discouraged; has never been out of debt since the day of their marriage; patient is not a morphine fiend and readily abstains from the same between attacks.

**Case 2:** Woman weighing 75 pounds enters hospital with acute gastric symptoms suggesting carcinoma of the stomach; weight three months ago

121 pounds; laparotomy, revealed gastropnoxis; evening following operation began to vomit, repeated gastric lavage gave no relief; saline infusion in breast; in two weeks patient left hospital feeling like a new person; two months later gained 30 pounds, happy and contented.

**Case 3:** Male 63 years old with symptoms suggesting carcinoma of stomach; gastric examination revealed a dilated and ptosed stomach; question arose whether laparotomy indicated; operation; high right rectus incision as for gastroenterostomy; gall-bladder O. K.; pancreas O. K.; no malignancy of stomach; while removing an obliterated appendix noted stomach becoming enormously dilated. Gastric lavage while on operating table. Post-operative history, hiccuph and continuous vomiting uncontrollable; evening of the third day I was horrified to find the patient's stitches had broken, and abdominal contents projecting through incision; surrounded parts with hot saline, hurriedly placed patient on operating table and with considerable difficulty without anaesthetic we succeeded in closing wound. Patient died in 24 hours. These patients are usually mothers of a large family; 85 per cent being multipara; frequent child birth, and entire house work devolves upon them. It is this class of patients of whom a famous French clinician referred to when asked his description of hell. "The host of women begging with outstretched arms for relief."

**Chronic Alcoholism** is at times very baffling and full of pit falls. The society woman, the chronic tippler, often hide their habits, and it is with the greatest difficulty one is able to make a diagnosis. These patients' symptoms often simulate gastric-ulcer. They may have haematemesis, melaena, anemia, loss of weight. An exploratory incision invariably produces delirium tremens. A general view of all the symptoms, daily observations of the patient in the hospital leads at once to a correct diagnosis.

**Hyperthyroidism** is a most interesting and at times baffling disease. Tumor, tachycardia, tremor exophthalmos, amenorrhoea, dysmenorrhoea, rapid loss of weight, diarrhoea or constipation; gastro-intestinal disturbance are not always found together. One may only find one of the above symptoms. Goitre and tumor may not be perceptible. The size of the tumor has absolutely nothing to do with the severity of symptoms. These patients may have a persisting constipation and the family physician at once jumps to the conclusion that the constipation is the cause of the gastric-symptoms; that the patient is suffering from an auto-intoxication. Yes, it is an auto-intoxication, but the thyroid plays the role. Every surgeon who deals with hyperthyroidism confesses that in thyroid operations there are two kinds of cure, the subjective and the objective. Take an exophthalmic goitre case, operate, and then see the patient in one or two years, ask him how he feels and he will say, "I am cured." His nervous system, heart action, at least so far as he knows, are such that he thinks he is cured. Objectively I think that exophthalmic goitre is never cured unless a very mild case is taken in the early stages. To explain my idea, consider the diphtheria toxin; we all know that anti-toxin is not a cure per se, it neutralizes the toxin. It can never remedy the harmful influence of the toxin on the nervous system, the myocardium and renal tissue. It must be given early to do so. And so it is with thyroidism. We must get at the hypersecretion early. Recent work on this line seems an early diagnosis can be made. Andre Crotti, for nine years assistant to Prof. Stilling, Kocher and Roux, tells me the blood picture is pathognomonic. We have a leucopenia as low as 3-4000 with a lymphocytosis of 60-80 per cent. The Mayos in their recent articles question this; but Prof. Kocher has recently reported several hundred more cases and emphatically asserts the blood picture is diagnostic. Another diagnostic aid has been called to our attention by



**Van Noorden.** In his latest monogram on diabetes called attention to the effect of the thyroid on the pancreas. It is a well known fact that in hyperthyroidism we often have glycosuria; whereas with thyroidectomy it is almost impossible to produce glycosuria. Here the feeding of a standard amount of sugar would be of aid in an early diagnosis, and getting a diagnosis before myocardial changes have been produced.

**Cardio-Renal** Diseases unfortunately are often difficult to diagnose. The gastric symptoms are often those of gastric ulcer. Gastric-surgeons now realize that even gastric-ulcer is usually a secondary condition, viz., the uraemic ulcer so ably described by Moynihan. Gruber recently tabulated 4,208 cases of gastric ulcer at the Berlin clinic; in 61 per cent of 170 cases there were marked changes in the heart and blood vessels, and mark this, the ages varied between 16 and 33 years, except four between 10 and 20 years, and seven between 80 and 90 years. Case No. 1 is of interest in many ways. The patient was sent to M. G. H. in September, 1908, with a note suggesting operative interference at the pyloric orifice of the stomach. On questioning the patient I found that he had been complaining as far back as the Civil War. He had three physicians in consultation just previous to coming to the hospital. His history was not typical of ulcer, and yet depending entirely on history a grave mistake would have been made. Gastric analysis revealed nothing; but the cardiac condition was typical and with a blood pressure of 200 mm., with signs of oedema at base of lungs, one could not help making a diagnosis of chronic uraemia. There are cases where the urinary findings are negative; indeed, 39 per cent of acute nephritic cases have a negative urine, and we therefore see how careful our investigations must be.

Of recent years much has been said of the gastric symptoms in angina pectoris. In my own experience one has the greatest difficulty in differentiating it from cholelithiasis and gastric ulcer. As a usual thing one expects hypertension; Porcheimer in twelve cases, normal blood pressure in one, low in seven, increased in four; Maskenzie has never found any evidence of vascular spasm; Osler believes hypertension in great majority of cases. As a usual thing general history of attack brought on by exertion leads to a correct diagnosis. I recall a blacksmith sent to hospital for gastro-enterostomy. His history was so typical and told in so clear-cut a manner and reeled off in a manner suggesting a prepared witness, I became suspicious. In routine examination of the heart I found a marked irregularity of the pulse on sitting up, and lying down became normal. The case was used for several weeks as an object lesson by the best clinicians and all agreed to the diagnosis of gastric-ulcer. My visiting surgeon one day surprised them all by having them note the condition of the pulse, and gastric-ulcer vanished from our midst. However, I question to this day if the myocardial changes were not secondary to cholelithiasis. I believe the chronic cholelithitic patient invariably shows myocardial changes, at least recent literature tends toward that view; we certainly see it in fibroids of uterine. I recall another interesting case, in a very prominent divine, who died suddenly; every physician he called on made a diagnosis of gastric-neurosis.

**Plumbism** has always interested me because of the varied symptoms gastric one can elicit; the frequent risks they have of falling into surgical hands; and the simple diagnostic test we have. In working in clinics after being fooled once or twice, one will never fail to look for a lead-line, and then don't fail to look at the teeth from the interior of the mouth. Occasionally one finds no lead-line, and here the routine blood-smear with the stippplings lead to a correct diagnosis. Oliver, in his excellent treatise on

Industrial Diseases, states that stipplings are not pathognomonic; however I have yet to find a failure when one joins the blood picture with clinical symptoms.

**Chlorosis:** The very term associates in our mind anemia; we all know gastric-symptoms predominate and often simulate ulcer. I remember being called upon by Dr. Fitz to make a blood smear of a robust, red-cheeked Irish girl, who had peculiar gastric symptoms. I punctured the lobe of the ear, once, no blood; tried a second time with the same result. I then concluded to squeeze the lobe. Prof. Fitz, who was watching my manipulations, called upon me to desist, and in his humorous way said: "Young man, what have you observed?" I replied: "Woman has awfully tough skin." "Good," replied the professor, "now continue your investigations." I was surprised to find that I was dealing with a chlorotic, and the point Professor Fitz wanted to bring out was how necessary routine blood work is.

**Leukemia:** At times, especially the acute form, stimulates gastric ulcer, and here the blood smear is absolutely necessary.

**Syphilis:** Professor Councilman's remark is peculiarly applicable here: "Remember, doctor, you always have cancer, tuberculosis, and syphilis before you: when in doubt, think of that triad of diseases, and you will often be correct." How often does not *Tabes* lead one astray. We all know that gastric crisis may simulate acute perforated ulcer or a chronic ulcer. Here is a case peculiarly applicable. A widow sent to the hospital to convalesce after an operation of sarcoma of the hip. While in my care she had peculiar gastric symptoms which I foolishly looked upon as neurasthenic. I failed to examine her carefully. A month later Dr. Roger Lee became my visiting physician. I explained the symptoms of the case. The doctor walked to her side, examined her pupils and reflexes, turned upon me with a smile, and said: "Tabes." Now that sarcoma was probably gumma. In rare occasions in a *Tabetic* the reflexes may be normal and when sent to a hospital in an acute condition, operative interference seems indicated; here a blood count is of utmost value. Syphilis of the stomach, while quite rare, is to be considered. Mathieu, in a historic review of syphilitic lesions of the stomach from Andral's two cases in 1838 to date, cites two cases of Fournier "false cancer of the stomach;" a tentative treatment of Hg. treatment was almost causally instituted before the contemplated operation, and in two months all trace of cancer had disappeared. In one case pylorus was resected before syphilitic nature of the lesion was ascertained. In another case an actress with a history of syphilis had apparently a hemorrhagic gastric-ulcer, rebellious to ordinary measures, but healing at once under K. I. The patient had a recurrence a few years later while traveling, but no physician would heed her request for anti-syphilitic treatment for the hemorrhagic ulcer, and she used up nearly her last remnant of strength in traveling back to her old physician who again banished all symptoms by vigorous K. I. treatment. In every case of stomach disturbance it is well to bear in mind the possibility of a syphilitic origin.

It is not an unusual thing to see malaria with gastric symptoms predominating, and here the blood smear will save our patient much mental and physical suffering. Who has not been deceived some time or other by the wiles of a pregnant woman: the woman desirous of being free from the pregnant state? A most humorous case fell into my hands about three years ago. While on my Lying-In-Service I delivered a Spanish Jewess of a fine healthy baby. In the course of my visits I elicited the following: "Doctor, when I first take sick I want no baby. I go to district physician and say, 'Doctor, I have belly ache' he give medicine, no good. I go to M. G. H. and see Professor Doctor. He examine me, and say, 'Rebecca no

sick, you got baby,' and he send me to this hospital." I wonder how many gastric analysis have been made and abdomens opened, to find merely a pregnancy?

**Tape-worm**, with gastric symptoms, are more common than we realize. A few months ago I saw two cases of pork tape-worm with gastric symptoms. The husbands were seriously considering removal from malarial-stricken Oklahoma, because of malaria in their wives' systems. Here examination of feces for eggs cleared malaria; allayed the fears of the family, and financially was of great influence to the husbands. We, as medical men, should allay the fears of the people concerning malaria in the state of Oklahoma. I have had but little knowledge concerning its prevalence in this state, but I do believe we undeservedly give this state a black eye every time we diagnose malaria without positive blood findings.

Of recent years a great amount of literature on chronic appendicitis with stomach symptoms predominating has been edited. Moyinhan, of England, and Mayos, in this country, cite innumerable cases in which the diagnosis of gastric ulcer had to be differentiated, and Moynihan goes so far as to state ulcer is always a secondary condition, often finding the appendix diseased. I do not believe from my hospital experience a vast number of non-pathological appendices are removed daily. When these patients reach the hospital the surgeon has merely the past history to rely upon. We all know how fleeting pain is, and naturally the surgeon, knowing every pathological appendix is a sleeping volcano, liable to erupt at any minute operates. It is here the attending physician can be of immense benefit: indeed, he knows better than the surgeon what is best for the patient. There should, therefore, be much closer co-operation between the physician and surgeon. The patient should never come to the hospital without a good history of the case accompanying.

In a farming community beginning hernia is often mistaken for any old gastric disorder; here a routine examination of the rings is of the greatest value. Today we find the right upper quadrant attracting the attention of surgeon and internist. Picture to yourselves the anatomy of this region, in an area the size of a silver dollar. Dr. Mumford, speaking of the morphological relationship of the stomach, liver and pancreas, says: "Pancreas, liver, and ducts hang like three apples on a single stem, the duodenum, and whatever effects one, often effects the three." In the diagnosis of gastric ulcer, a P. E. gastric analysis often tells us nothing; the anamnesis is of vital importance and even then how positive can one be that the lesion is not a malignancy. Given the most experienced surgeon with the lesion in his hands and he often cannot make a diagnosis without most careful microscopic examination. I can recall a religious woman being operated upon with every indication of the lesion being an ulcer. Inspection showed no enlarged glands. In a recent letter her physician states she has all the evidence of cancer. Shilling reports a case in a man of 55. On opening the abdomen cancer seemed positive; a resection was done, but microscope showed tumor in the large curvature adherent to transverse colon was a fibrous connective tissue growth; but at the same time a minute tumor near pylorus was carcinomatous. He cites another case in a woman of 30 years, gastroenterostomy was done, and the tumor no doubt was tubercular, and another tumor situated in the caecum and appendix. The appendix on removal was found to be tubercular. Again a stomach with fibrous induration may simulate cancer. He operated on a woman 60 years old with above condition; did a section with gain in weight; five years later tumor re-appeared at the site of anastomosis; microscopically it was shown to be fibrous tissue. Another resection was done, which was followed by



suppuration and fistula into transverse-colon with adhesions and a third operation was done within a year. The woman is now in good health, six years following the operation. Sohns from Boas private clinic narrates case of young man of 32 with symptoms of ulcer of four years' duration. First examination during ulcer period stomach showed hyperacidity; six months later still hyperacid with occult-blood; three months later evidence of loss of weight appeared; still acid; placed on Leube ulcer diet and patient gained weight and his symptoms disappeared. They soon returned and a tumor previously imperceptible made its appearance. At operation tumor was found to be inoperable. He cites two other cases with gain in weight, in spite of cancer steadily advancing at pylorus, and another case where cancer was situated at the juncture of duodenum with the jejunum. At times distaste for meat may be the first sign of gastric ulcer; in the beginning the symptoms are so mild the physician and patient look upon it as a bilious attack; just exactly what this term means, I do not know. Pain is not a striking symptom nor is distaste for food. Today the aphorism is given; a patient with gastric symptoms whose stomach never troubled him these 30 years and think of cancer. Occasionally we find Carcinoma of sigmoid of the colon referring all symptoms to the stomach and Cabbot cites several cases where this mistake was made.

**Cholelithiasis:** How many physicians do not come into contact with patients suffering from light attacks of distress, gas, upward pressure, coming often soon after eating or at irregular times, often of sudden onset, short duration, eased by belching or slight vomiting, regurgitation or slipping away almost unnoticed and without treatment. Later a more or less prolonged pain is complained of by a certain percentage in the epigastric area, right arch or whole liver area. The pain may be increased by food exertion or motion or deep inspiration and then called pleurisy. Later we find them having a typical gall-stone attack, sudden, severe pain epigastric with girdle like pain extending up into back and right shoulder, with pain on breathing, belching of gas, and nausea and vomiting and suddenly there is a cessation of symptoms. Perhaps the patient is operated upon and lo and behold the pancreas on examination has a typical corn-cob feel. How are we to distinguish the above symptoms from duodenal ulcer? I believe a careful history will elicit the following well known physiological fact: With the contraction of the stomach and the opening of pylorus, it permits the escape of stomach contents, which is also signal for the gas to escape upward, therefore belching is a sign the stomach contents is being expelled, and pain ceases as the stomach contents reaches it in contradistinction to cholelithiasis where food gives no relief.

**Pericolitis** is a disease which, up to date, one hears little about, but which, as surgeons learn to examine every nook and cranny of abdomen while the abdomen is open, will teach us much. I recall two cases in which the symptoms were very mild and in which we diagnosed high appendix. Pathologically it is a patch of isolated, circumscribed, adhesive peritonitis on the outer wall of colon and occurs more especially at the site of flexure-coleica-dextra or sinistra or on sigmoid. The disease was first described by Virchow (Virchow's Archives B. 5, 1853.) who said he found it often and said he believed it to be mistaken for gall-bladder and similar diseases. His description was forgotten for 40 years until surgical operations revealed a number of cases (1890-1900). German writers, men like Laube, Windschild, Bittorf, et al., claiming it an independent affection; while Nothnagel was skeptical. Symptoms are localized pain, tenderness, and abdominal wall rigidity. Symptoms may be mild and evanescent or so severe as to cause diffuse suppurative-peritonitis; may last few days, weeks or months with



improvements and relapses. Improvement generally follows without operation, viz., married woman 42 years, complained of pain in right side of abdomen. Of late continuous and kept her awake at night. Pain sharp, not crampy, not into back and not dependent on eating. Never confined to bed at any time; obstinate constipation for years. P. E. tenderness with rigidity in area the size of adult hand mid-way between McBurney's point and right costal margin nipple line. Diagnosis: High appendix, operation showed appendix and gall bladder o. k., right hepatic flexure of colon and its omentum were adherent to anterior peritoneum over an area size of palm of hand. These were freed, wall of colon very much thickened, serosa injected and uneven. Other organs o. k. Piece excised for diagnosis. "chronic inflammation throughout the connective tissue; surface infiltrated with lymphocytes; one end necrotic with foci of lymphocytic infiltration. Chronic inflammation. Patient recovered without incident and three months later no symptoms."

After all, medicine is far from being exact science; our ignorance is greater than our knowledge. We are not masters, but the servants of Nature, and we must sit humbly at her feet patiently investigating the secrets of that most marvelous collection of forces, the living human body; trying to help her, not endeavoring to take the case out of her hands. Rhazes-Arabian-Philosopher-Physician well says: "He alone merits our confidence who, having opportunely applied himself to the study of medicine, has frequented able masters and seen much of the sick; who joins to the assiduous reading of good authors his personal observation. For it is impossible to see all, to test everything one's self, and the knowledge, the experience of a single individual compared with the experience of all men and of all ages resembles a thin thread of water placed beside a great river."

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### **"INTESTINAL INDIGESTION."**

**F. W. Fwing, M. D., Terral, Okla.**

We understand by the term "intestinal indigestion," any perversion of the normal processes of digestion, occurring within the intestinal canal.

It has been suggested by several writers, that the varieties of intestinal indigestion be designated, as "intestinal dystripsia" for those cases, due to disturbed activity of the intestine itself, and "hepatic dystripsia" or "pancreatic dystripsia" when the disturbance is dependent upon the disturbed function of the liver or pancreas.

Differentiating between intestinal and gastric indigestion, is sometimes rendered very difficult, by a dilated or prolapsed stomach.

Intestinal indigestion may be due to abnormal secretion, abnormal absorption and abnormal peristalsis.

In some cases only one of these conditions may be present, but in a majority of cases, two, or all three may be present.

In order that we may more intelligently discuss this subject, I shall classify and subdivide the various types of this disorder in the following order:

Intestinal indigestion, due to pathologico-anatomical alterations in the structure of the intestinal walls, nerves or blood vessels.

Intestinal indigestion due to absence or deficiency of the intestinal digestive secretions.

Intestinal indigestion due to excessive motility of the bowel.

Intestinal indigestion due to abnormal bacterial activity.

Intestinal indigestion due to abnormal gastric chemistry.

Intestinal indigestion due to abnormal substances or irritants reaching the intestinal canal from the blood.

Intestinal indigestion of nervous origin.

Intestinal indigestion due to intestinal parasites.

In intestinal indigestion due to excessive motility of the bowel.

To go into an extended discussion of this subject would occupy too much space, therefore I shall touch only the more important points.

Intestinal indigestion due to pathologico-anatomical alteration in the structure of intestinal walls, lymphatics, blood-vessels and nerves. In this class we have enteritis, both acute and chronic, phlegmonous, diphtheritic, or membranous enteritis. Most all forms of enteritis may be classified into two groups; first, those forms caused by pathogenic micro-organisms, these may be designated infectious catarrhs. Second, those forms caused by chemical poisons, and should be designated intoxicational catarrhs.

Cold, gall-stones, hardened fecal masses, colitis, intestinal ulcers neoplasms, obstructions and displacements may produce intestinal indigestion, and properly belong in this classification.

Intestinal indigestion may be caused by abnormalities of the three principal intestinal secretions, the bile, the pancreatic juice and the succus entericus.

The influence of bile on intestinal digestion is not fully agreed upon by all writers, but there can be no doubt that exclusion of bile from the intestinal tract reduces the absorption of fats materially, and that the excretion of a normal quantity of bile is a necessary adjunct to intestinal digestion.

The pancreatic juice is the principal factor in intestinal digestion. The most important constituents are the ferments.

Amylopsin, an amylolytic enzyme, converts starch into maltose, then glucose, cane sugar into grape sugar but does not change milk sugar. Steapsin, a lipolytic ferment, which splits the fats into fatty acids and glycerine.

Trypsin a proteolytic ferment which changes proteids into albumoses and peptones.

The succus entericus, consists of water, albumin, mucin and salts.

Ptyalin and an inverting enzyme have been discovered, it neutralizes the acids formed by the fermentation of the carbohydrates and aids peristalsis.

Intestinal indigestion may be caused by indiscretion in diet, the diet may be too excessive for the gastric secretion to transform, it may be normal in quantity but unhealthfully mixed so that it may contain too large a proportion of fat, carbohydrate, or proteid; it may contain food in a state of putrefaction or fermentation.

Condiments and drugs are frequently a caustive agent in the production of intestinal indigestion, among them are pepper, mustard, and ginger, the bromids, salicylate of soda, the bismuth salts, iron, belladonna, bicarbonate of soda and HCl with pepsin.

Intestinal indigestion may be produced by abnormal bacterial activity.

It has been conclusively shown that the presence of bacteria in the intestine is not absolutely necessary to digestion and animal life, but it seems to be necessary for a certain amount of bacteria to be present before the scheme of intestinal digestion is perfect; on the other hand, an excessive bacterial activity is harmful as will be seen in the infective diarrhoeas.

The question of the normal or abnormal conditions that may accompany bacterial activity, seems as yet undecided.

Intestinal indigestion may be due to abnormal gastric chemistry as is well known from the intestinal meteorism and disturbance of peristalsis, both hyper and hypoperistalsis—which follow on gastric hyperchlohydria, and the frequent diarrhoeas observed in connection achylia gastrica.

Intestinal indigestion of nervous origin is considered by some writers as resulting from a combination of various intestinal neuroses depending part on functional weakness and partly on exaggerated irritability of the vago-sympathetic fibres of the intestine, these cases exhibit a very capricious behavior of the intestine, constipation or diarrhoea may alternate in the most surprising manner, and without any assignable cause, and at times the most indigestible food may be taken in large quantities and excellently digested.

Intestinal indigestion may be caused by irritants reaching the intestinal canal from the blood; that toxins may be excreted through the walls of the intestine is a well known fact; these toxins may be the product of uremia, septicemia, gout, scurvy or leukemia, or there may be certain poisons excreted through the intestinal mucosa, such as mercury. Whether or not these processes go far enough to produce formation of ulcer, they may irritate the mucosa sufficiently to cause disturbance of secretion and absorption.

Whenever intestinal indigestion has existed for a considerable time on purely functional basis, it may eventuate into a disease with definite anatomical alterations. One of the most common symptoms is augmented intestinal peristalsis as a result of irritation by fermentative masses.

A condition results in which the contents of the upper bowel are hurried through the entire intestine in an unaltered condition—stools may present the same properties as are characteristic of the contents of the jejunum, which are normally thick, but liquid and gellatinous.

The stools in intestinal indigestion may present the same characteristics, they consist of feces mixed with unaltered food, and a large amount of glassy frog-spawn-like mucous.

As mucous is considered a sign of catarrh, we are called upon to distinguish the mucous in jejunal diarrhoea, from that passed in catarrhal inflammation of the bowel.

The following features will serve for the differentiation:

The jejunal stool is generally of an acid reaction, has only a slight fecal odor, and is very rich in bile pigment, while the mucous in genuine catarrhal inflammation is not especially rich in bile pigments, frequently contains none at all, but contains epithelia and round cells which are absent in the jejunal stools.

The most effective method of beginning the treatment of intestinal indigestion is to first clean up the intestinal tract; this can be very well accomplished by epsom salts or castor oil, then, if the patient be an adult and fairly well nourished, withhold all food for a period of forty-eight hours, then the diet should be resumed and should be selected according to information, given by gastric test meals and examinations of the stools.

When there is excessive bacterial activity, the various intestinal antiseptics have been advocated; however, I find that a great majority of my cases get along satisfactorily without them; I have seen serious results follow the use of irritant antiseptics.

Perhaps the most available of these antiseptics are bismuth salicylate and subgallate, thymol, menthol, salol and calomel; creosote, even in small doses, is likely to seriously derange the stomach in this class of patients.

To sum up, in the treatment of intestinal indigestion, as in the treatment of all other diseases, look well to the exact cause of the existing



condition, use the test meal, examine the stools, and make a thorough physical examination of your patient, then clean up the intestinal canal, regulate the diet and positively interdict all excesses.

If intestinal parasites are present, remove them; if the trouble is of nervous origin, direct your efforts towards the upbuilding of the vital forces, or whatever the direct caustive agent may be in the existing condition direct your whole efforts to its removal.

## ENTEROPTOSIS AS A FACTOR IN INDIGESTION.

Dr. H. P. Wilson, Wynnewood, Oklahoma.

It has been truly said, the localization and differentiation of the contents of the abdominal cavity, normal or abnormal, is to some physicians shrouded in mystery, to others an unfamiliar region, and to the expert at times it is a riddle, the solution of which can only be accomplished by exploration either ante or post mortem. Armed with this knowledge the alert physician or student is stimulated to greater care and closer study of every method and detail which will aid him in arriving at a correct interpretation of existing conditions.

As a result of such exhaustive study, Glenard, in 1885, published and described a condition characterized by a prolapse of part or all of the intra abdominal organs productive of a definite groupe of symptoms to which he gave the name "Enteroptosia," and which still bears the author's name.

Some have written very learnedly of the pathogenesis of enteroptosis. Of the broad and fundamental conception of it as an inherited constitutional abnormality which has been handed down from generation to generation, an entity of pathology represented by that peculiar anatomical deformity of the chest wherein the length of the chest is increased and the circumference of the lower portion is much diminished, so that the viscera cannot occupy its normal position as there is no room in this narrowed bony structure and as a general result "Ptosis."

Such pathology as this which has been in process of evolution for so many years through one generation after another and is not yet in harmony with the forces of nature and no hope of ever harmonizing them, I can see no reason why we should pursue the phantom further. If it has not yet reached the border line of physiology, I fear it will never do so.

From my feeble way of thinking, I am sure we have an acquired enteroptosis, though this is doubted by some and denied by others; still, like the poor, they are always with us, some among the young, some among the middle-aged, and a few among the old. It does not require a very diligent search to determine the causes, viz.: In the younger set, custom of dress; in those a little older, pregnancies and wasting diseases, and the old, excess of fat.

In the young: The girl at puberty has been accustomed to spending much time out doors, indulging much in our-door sports, running, jumping, and frolicking like a boy, but a change has come; her menses is here and begins to drain the system. Relentless custom compresses her within a corset, her clothing is no longer suspended from her shoulders, but hung from her waist by tightly drawn bands, the light, short skirts have been exchanged for long, heavy, trailing dresses, and thus the rosy-checked, plump, vivacious miss, harrassed, haltered and harnessed, is hidden away to be exhibited only on special occasions.

Do you wonder that ere long she becomes an enemic, dyspeptic, constipated, nervous and sleepless invalid? Beholding her now we are led to



exclaim, as did Homer: "The belly is the most commanding part of the body."

Again: Repeated pregnancies, with over distention of the abdominal walls by the pregnant uterus, stretching its muscles and fibrous structures to such an extent that after the uterus has been emptied, the abdominal walls will be lax and does not easily regain its former tonicity, since the structures do not contract readily and the intra-abdominal pressure tend strongly to prevent its return to its former capacity.

Now add to this a weakened perineum, thus destroying the pelvic supports, the woman leaves her bed, to assume an upright position, her intestines become loaded, she has put on a corset, tightened her waist-bands around her waist, thus the weight of her clothing drags down her stomach, colon, intestines, and from lack of intra abdominal tension necessary for their support, the kidneys and sometimes the liver and spleen, through the elongation of their fibrous attachments, sink down, thus completing the process of visceral ptosis.

One other class I must mention Those of much inter abdominal fat. This person suffers from typhoid fever, or other wasting disease all the surplus adipose is used up, the abdominal wall is left lax, intra abdominal pressure is low, convalescence is established, large amounts of food is taken which is not digested nor appropriated, the bowels are over loaded, the erect position is assumed while yet the ligaments of the abdominal organs are weak, and what could happen save ptosis of some or all concerned organs?

We must not forget that not all who suffer thus are women, but rather more men of the latter class. What are the inevitable results? With the contents of the abdominal cavity thus displaced; the kidneys wandering from their moorings, liver with its weighty structures swung from its slender ligaments, stomach often times much dilated and on too low a level, both ascending and descending colons shortened or on a stretch, the transverse colon sagging in its center producing acute angles at the hepatic and splenic flexures, the small intestines lowered within the cavity, and the lower abdominal wall sagging and bulging, we have through abnormal positions disturbing the physiological equilibrium, which normally prevails, and substituting a pathology which has baffled all efforts of nature to harmonize and restore.

What results naturally follow? Aside from the fact that nature abhors these abnormalities the circulation is much disturbed, the veins are compressed, and prevents the return flow from the parts with stasis resulting, another part is stretched, the arterial flow is not hindered but the veins are narrowed and again stasis follows. Further, with the distortion and compression of the organs, come distortion of the vessels and engorgement results.

A degree of stasis prevails throughout the portal vein and its tributaries, and thus the mesenteries are constantly filled and over-weighted. Now add to this the extra tension of the nerve supply. Here the nerve is compressed, there it is stretched. Now it is stimulated and overworked, and now paralyzed and quietude reigns. Now crying in vain for nutrition, sending its pleadings in the shape of pain throughout the body and nowhere is satisfaction to be realized. Motor impulse is lost, peristalsis paralyzed, impaired function is the inevitable result.

The stomach, when it is distended, loses its muscular tonicity, which means that it is in a condition of atony. It cannot contract around the ingesta in the normal manner; on the contrary it gives way to the pressure and weight of its contents, its greater curvature becomes distended

and sinks down, its capacity becomes greater, and its walls thinner with the result of weakened peristalsis and contractions. Add to this a continual passive congestion which in turn produces a chronic hyperemia, and we have the principal cause of the frequent catarrh of the stomach and intestines.

Is this pathology enough to influence what would otherwise be normal digestion? The symptoms complex produced by enteroptosis pertaining to the process of digestion are variously interpreted and understood.

The physician detects a gastroptosis with the concomitant symptoms of chronic indigestion, pain, distress and flatulency, nausea and vomiting, tachycardia, anorexia, belching gas, dread of foods—he declares at once that this gastroptosis causes the indigestion.

The surgeon in his careful and painstaking search for pathology discovers a kidney floating recklessly about in the abdomen. He readily elicits a history of one painful attack following another with those ever-present gastric disturbances, nausea, vomiting, great nervousness with prostration; Dietl's crisis is recognized and he at once refers these gastric disturbances to reflex influences set in motion by the intruding kidney. Throw on the flash light and parade the clinical picture of gastroptosis or nephrop-tosis before the gynecologist and how certainly he discovers the peculiar resemblance of these symptoms to those of a retroflexed uterus. In the one case the stomach is at fault, in the second the kidney is to blame, and last the uterus is the treacherous offender.

Now may I not ask: If the ptosis of these organs, taken singularly and alone, produce all the deleterious conditions ascribed to them—and we cannot doubt but that they do to some extent, at least—how much more will the effect be exaggerated when the ptosis of all these organs is taken collectively?

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## DIGESTIVE DISTURBANCES OF GASTRIC AND DUODENAL ULCER.

By A. L. Blesh, M. D.

Chief of Staff and Surgeon-in-Chief to Wesley Hospital;  
Chief of Staff of Holmes Homes of Redeeming Love,  
Oklahoma City, Oklahoma.

Under the flag of "indigestion, dyspepsia and stomach trouble" have sailed many diseases which modern, progressive surgery has classified and placed upon a demonstrable pathological basis. Within the last decade, the purely functional "indigestion" has been practically limited to purely transient disturbances. As a matter that has been surgically demonstrated over and over again, almost all of the "persistent severe" cases have to do with some form of demonstrable lesion of the stomach, duodenum biliary tract, pancreas or colon, including the appendix. Not the smallest offender in my experience, is the matter of colonic stasis, be the cause what it may, with the resultant toxemia. When to these is added the various toxie gastrites, approximately all the "severe persistent" types of digestive disturbances are covered.

My part in this symposium is to deal with the digestive disturbances incident to gastric and duodenal ulcer. With some limitation and modification the quotation heading this paper, applies as well to gastric and especially pyloric ulcer as to that of the duodenum.

A few remarks relative to the newer conception of the etiology of ulcers of this region may facilitate a clearer conception of the pathology and its symptomatic manifestation. It is now quite clear to us that various bacteremias play an important role in the local infections whatever the de-

termining localizing factor may be—trauma, or the many retrograde evolutionary processes concerning which we as yet really know so little, but colon bacillus bacteremia is one of the commonest of these and is favored and induced by every factor which favors colonic stasis. Aside from acute and chronic adhesion obstructions, a copro-stasis nearly always has to do with the colon, the natural home of the colon bacillus. In a series of blood examinations undertaken for this purpose, the writer was astonished at the frequency of this condition of colon bacillus bacteremia.

It is not surprising that the colon bacillus often localizes within the abdominal cavity, proximity as well as the blood stream will account for this. That is to say direct extension is added to a hematogenesis. After an attack of dysentery, the writer once saw a pure colon bacillus abscess develop in the knee joint of a little girl, following traumatism.

The pylorus and duodenum may be considered functionally as one organ and in this sense represent to a degree the gizzard of a fowl and as such is exposed to more or less traumatism, thus favoring bacterial localization. But, too, we must not forget that in the severe types of colonic stasis, we may be dealing also with a direct infection.

### **How Do Ulcers of the Stomach and Duodenum Manifest Themselves Clinically?**

The symptoms vary with the location and acuteness or chronicity.

Acute ulcer more commonly occurs in young chlorotic girls and locates by preference in the stomach. According to Quincke and Daetwyler anaemic conditions predispose largely through diminished existence. A diagnosis of acute ulcer of this type offers no difficulty and is rarely confused with or treated for "dyspepsia." Hematemesis and tarry stools are frequent, but perforation comparatively rare. On the other hand, chronic ulcer, which when of the stomach, is found of about equal frequency in the sexes; when of the duodenum, more frequently in the male, is commonly undiagnosed as such and treated as a functional disturbance frequently until the stomach hangs as a great inert bag as far as the pelvis. The syndrome of pain upon the ingestion of food, the interval varying with the location of the ulcer, vomiting, hyperchlorhydria, toxemia and often emaciation being interpreted variously as some type of indigestion. When the ulcer is duodenal, it is usually worse in winter, so that the term "winter dyspepsia" has even found its way into the literature of the subject. Microscopic hematemesis and melena are not so common as to be dependable, no matter what the average text book says concerning the matter. Acute ulcer never leads to pyloric stenosis and is, as a rule, a medical disease, while chronic ulcer, no matter where located, is always surgical as soon as the diagnosis is made.

**Decubitus pain** is of more or less significance in pointing out the location of the ulcer. A pyloric or duodenal ulcer gives rise to more pain when the patient lies on the right side, while the cardiac ulcer is more painful with the patient on the left side. An ulcer on the posterior wall of the stomach or duodenum is more painful in the dorsal decubitus and the patient will often lie on his abdomen for relief, while the prone position exaggerates the pain of the anterior wall ulcer. The reason for this is purely mechanical—the position bringing the irritating acid stomach contents in more intimate contact with the ulcer surface.

In the acute type of ulcer, the emergencies requiring surgery are perforation and hemorrhage, while the chronic offers in addition, pyloric stenosis and motor insufficiency.

**What Are the General Symptoms Common To All Types Which So Mimic**



### Indigestion As To Lead To Deception?

Aside from the occasional "latent" ulcer, all of them give rise to hyperchlorhydria, gaseous eructations, which are sometimes so acid as to "set the teeth on edge," a sense of fullness in the epigastrium which is most manifest at varying periods after eating, no matter how little. These patients often complain of "heart burn," an obsolete term, yet lingering in the literature. Pain is by no means always present, the feeling is often more one of discomfort after meals—a sense of stomach distension. In duodenal location whether the sensation is that of pain or discomfort, fullness or tension, it appears as a rule from two to four hours after food ingestion and is again relieved by taking food into the stomach. Hence it is often referred to as "hunger pain." These patients are in the habit of carrying a cracker or some other article of diet in their pocket with which to relieve themselves. Others are in the habit of taking soda or some other alkali. These form the cases of "acid indigestion" of the old nomenclature. The "heart burn" is due to hyperchlorhydria. By this term is meant the presence of an excess of free hydro-chloric acid in the stomach content—a hyper-secretion above the normal amount. In the process of normal digestion, there is always present a certain amount of this acid free in excess of that required for proteid digestion. Within certain limits therefore, it occasions no symptoms, whereas in excess of certain limits, it gives rise to the burning sensation characterized by the laity as "heart burn" as well as to acid eructations.

**Gastralgia**, so-called, is another of the symptoms, which, lingering in the nomenclature as a relic of a by-gone era, has often been treated as an entity. It is a serious question in the mind of the writer whether such a disease is gastralgia without an organic or better still, a pathologic basis, exists at all. At any rate, it has been a matter of observation verified at the operating table, that all patients manifesting this symptom coming to operation, have exhibited a demonstrable lesion of the stomach, duodenum, gall-tract or pancreas. It is a frequent manifestation of gastric and duodenal ulcer and is then due probably to pyloric spasm, just as the pain and often gastralgia is due to duct spasm in cholelithiasis.

**Gastro-succorrhoea** will be more frequently found as a temporary and variable symptom, where pyloric spasm is pronounced, as a permanent and well defined symptom where pyloric stenosis is constant, that is where cicatricial stricture with sequential stomach dilation is present.

**Vomiting** may or may not be present and is of two kinds: First, the irritable vomiting, due to the mechanical irritation of the ulcer itself and to the accompanying gastritis due to the hyperacidity. This often masquerades under the euphonious appellation "nervous dyspepsia." Second, the retention vomit resulting from pyloric stricture. This is practically always periodic in character, occurs late in the disease and consists of fermenting putrefactive food stuffs ingested frequently several days before. The absorption of toxins gives these patients a sallow, blotched complexion and as a rule they are emaciated. In this picture, we see the not infrequent "bilious dyspepsia."

In the former the vomitus consists of a highly acid ingesta and stomach mucus with or without blood and while the patients are pallid and often anaemic, they do not exhibit the emaciation and the "liver spots" so called that we so often see in the victim of chronic ulcer with pyloric stenosis and motor insufficiency with consequent retention and toxemia. "Liver spots" is another of the loose terms so often used by the laity, and unfortunately also not infrequently by the profession. The liver itself has nothing whatever to do with their presence, but they owe their existence to



toxemia and often malnutrition. The breath becomes foul, the tongue coated, the skin dry and mottled, and the eyes lack lustre. Too often we have been misled into treating this syndrome as "bilious dyspepsia" and the mimicry of the recurring attacks confirm us in this error. In by far the larger percent of these cases, the disease is actually surgical and indeed will often be found to depend on an old chronic ulcer with stenosis.

Constipation is a condition which is frequently present and more often constitutes a symptom rather than a disease. Arbuthnot Lane's work goes to prove that it is often an active etiologic factor in the causation of gastric and duodenal ulcer. It continues throughout the disease as a rule, and is often considered as one of the most important symptoms of indigestion against which an arsenal of remedies have been aimed. As long as the pylorus is pernicious at all, the patient is sluggish with calomel and other "chologogues" which temporarily relieve by whipping up peristalsis and thus forcing the stomach contents through the narrowed pyloric opening in part, and in part by exciting vomiting and altogether by unloading the decomposing mass in the stomach all of which would be better and more surely and quickly accomplished by means of the stomach tube and free lavage.

How much of the older conception of the syndrome called dyspepsia will remain, when it has finally been resolved into its many etiological factors, I am not prepared to say, but I feel quite sure that the residuum will not be large. I also feel sure that the future will disclose that the colon is more to blame than we are at present inclined to admit or as yet able to prove. Whether this is to be dealt with radically as proposed by Lane, or by some other means, is yet a problem of the future.

A case of mine, an appendicostomy, done several years ago for a chronic colitis, has given me much food for thought along these lines. This patient keeps himself free from toxemia by flushing the colon from above downward. This he does without pain and effectually, the opening never leaks, and at any time that it is desired, the opening can be easily closed by merely cauterizing the mucosa. It may be that this operation might be extended to cover a wider field, since its performance is attended by practically no pain and by but little loss of time.

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## DISEASES OF THE GALL BLADDER AND OF THE PANCREAS, AS FACTORS IN INDIGESTION.

By. LeRoy Long, M. D., McAlester, Okla.

On account of the intimate association of the organs of the upper abdomen—through contiguity, through actual anatomical continuity and through a common source of innervation—interference with the normal function of digestion is one of the most constant symptoms of pathological processes in this area. This may be true for a long time before the appearance of typical, leading symptoms and signs which clearly point to the involvement of some particular organ. On account of this fact it is highly important that the symptoms be carefully analyzed in order that a correct conclusion may be reached before the development of tissue changes that make it difficult, if they do not actually preclude, a restoration of normal function.

In the investigation of chronic indigestion a matter of the greatest importance is the careful, painstaking effort to secure a correct history—how the early symptoms appeared; the relation they sustained to each other, the relation they sustained to the taking of food, the effect of different

kinds of food upon their severity. A careful history-taking will go a long way toward making a differential diagnosis.

The symptoms produced by disease of the gall bladder will of necessity depend altogether upon the character and severity of the disease. A mild cholecystitis without stones will not give the same symptoms as an inflamed gall bladder full of stones; nor will a gall bladder full of stones give the same symptoms as a stone in the common duct.

In the days of pioneer gall bladder surgery we carried in our minds a typical picture. Even up to a few years ago the average text book description of gall bladder disease gives the greater color to that part of the picture representing the typical symptoms of cholelithiasis of a positive and advanced type. But today a new literature is being written—a literature based upon a study of living pathology.

We cannot lay down certain symptoms and designate them as symptoms of disease of the gall bladder, for gall bladder disease left alone goes step by step, month after month, from one grade of pathology to another, and as the pathology changes, so do the symptoms, likewise, of necessity change—change and become more pronounced.

It is now most generally believed that infection of the gall bladder takes place through the blood. It is a hematogenous infection. Bacteria are carried to the liver through the portal circulation, then they find their way into the bile as it comes away from the liver. It was formerly thought that bacteria would not live in bile, but we now know that many species multiply in it. Some of the bile goes into the gall bladder, which has a capacity of about one and one-half ounces. The gall bladder having but little inherent contractile power, practically the same bile may remain in it for a long time. It becomes mixed with mucous. It is now a still better culture medium. The bacteria multiply. The mucous membrane is attacked. There is an exfoliation of its epithelium. It is the beginning of a pathological process, and as the pathology begins, symptoms begin to appear—vague, obscure symptoms, but none the less significant; none the less important. There is fullness after meals; there is wind on the stomach. The patient belches and is relieved. The pathology goes on. Larger areas of the mucous membrane are stripped of epithelium. To the fullness and weight in the stomach may be added nausea. There may be spitting up of the food. A little later there may be attacks of vomiting. The patient thinks it a "bilious attack." A cathartic followed by a restricted diet relieves matters for a little while. Shortly the distress is forgotten, followed by indiscreet eating. The stomach rebels. This time there is transient fever. There is tenderness in the epigastrium. From now on the symptoms referable to the stomach are present most of the time. There may be a period of relief when the stomach is empty, but when food is taken trouble begins—and it begins quickly. Frequently a patient who is the subject of disease of the gall bladder begins to feel the distress before the meal is finished: occasionally he leaves the table on account of it, sometimes going to the extent of inducing vomiting in order to get relief.

Herein is an important distinction from ulcer. In ulcer, be it of the stomach or of the duodenum, there is nearly always a period of ease after taking food. This is particularly true of duodenal ulcer; it is usually true of gastric ulcer. In gastric ulcer the period of ease may be one to two hours after taking food; in duodenal ulcer, from one and one-half to four and one-half hours. In gall bladder disease the distress comes on quickly—fullness, distention, weight—usually within half an hour. In ulcer, then, food relieves the distress; in gall bladder disease, it brings on distress.

As the infection continues the exfoliated epithelium gathers into mi-

nute clumps or masses, and these form nuclei, around which cholesterol crystals cling. The process continuing, stones are formed. During the extension of the inflammation, whether stones are formed or not, there is local tenderness at Abraham's or Robson's point: there may be tenderness under the rib margin, with pain radiating to the back, mostly on the right side; in rare cases it may be on the left side, or on both sides. If the ducts become infected, there is fever, for the reason that in this location lymphatics are more plentiful and more rapid absorption of infective material takes place. In the body, or fundus of the gall bladder, the lymphatics are so few that there is but little absorption.

If stones are present, all the above symptoms are enhanced. If a stone should become fixed in the opening of the cystic duct, there is agonizing pain. The gall bladder distends on account of being quickly filled with serum and mucous. As it distends the contour at the junction of the cystic duct changes, and if the stone is not firmly fixed, it falls back into the gall bladder, and the attack is suddenly over. This is the typical paroxysmal gall stone colic.

If the stone has gone through the cystic duct into the choledochus, the flow of bile is obstructed and jaundice appears. Severe pain, followed by jaundice, is generally a reliable symptom of stone in the common duct.

Now these last described symptoms are the terminal symptoms of gall bladder disease. In this stage there may be important—probably irremedial—pathological changes. During the months or years covered by the history leading up to this point, inflammatory adhesions have been formed, thus mechanically crippling adjoining organs. A stone may be fixed in the choledochus, or the infective process may have already begun the invasion of the pancreas, which is another, and most important, terminal result.

The subject of chronic pancreatitis has received a great deal of attention during the last few years. By degrees the truth has been forced upon the surgeon through what he finds at the operating table. What was once considered malignant disease of the head of the pancreas is now known to be, in most cases, a chronic inflammation. Again, we are coming to know that there may be in pancreatic diseases, just as in gall bladder diseases, a mild degree of involvement—involvement sufficient to produce the early, obscure symptoms, but in which there are no very marked gross changes in size found upon an exploration of the upper abdomen. Still, we have seen these patients in whom it was hard to fix the pathology; patients in whom we were not able to find satisfactory cause for the symptoms, get well after a cholecystostomy. And again, we are able to recall cases operated in which, in addition to gall bladder disease of one type or another, there was a distinct swelling of the head of the pancreas—sometimes very pronounced—and believing that there was a carcinomatous process, we have put a tube in the gall bladder and closed the abdomen with a bad prognosis; still we have seen these same patients relieved quickly of their digestive symptoms and go on to a prompt symptomatic recovery. The important result has been that men doing much abdominal work have put their observations together and have reached the conclusion that in the pancreas "inflammatory changes are much more frequent than anyone had hitherto surmised" (Deaver).

After the pioneer work of Fitz there have been important contributions to the subject of pancreatitis by Korte, Oser, Lancereaux, Opie, Moynihan, Robson, Cammidge, Truart, Lazarus, and, more recently, and of the greatest importance from the standpoint of clinical pathology and proper treatment, Deaver.

The diagnosis of chronic pancreatitis is, it is agreed by most clinicians,



very difficult. Opie is inclined to look upon it as exceedingly difficult, while Cammidge and Robson, on the other hand, assert that after a careful examination as to history and progress, together with a microscopical and chemical examination of the excreta, the diagnosis should be made in a large majority of the cases. Deaver, referring to these two views of the matter, declares that he occupies middle ground; that the diagnosis is "not too difficult to attempt."

It seems to be agreed by all who have made sufficient investigation to give their conclusions weight that in the great majority of cases of chronic pancreatitis there has been a pre-existing pathology of the gall bladder, or bile tract area, and in that case the pancreatitis would necessarily be preceded by the symptoms of the primary trouble. There are, however, cases of chronic pancreatitis which are not associated with gall bladder disease, and Deaver makes an analysis of symptoms in this class in order to arrive as nearly as possible to a correct conclusion as to what symptoms depend altogether upon inflammation of the pancreas. His paper, published in the *Journal of the A. M. A.*, April 15, 1911, is a remarkable and valuable contribution to this important subject. Those interested in detail, I refer to this article. I shall content myself by calling attention to some of the more salient points.

The patient generally comes on account of disturbances of digestion in connection with which there may be pain, nausea, and jaundice. But these symptoms have been preceded by others less pronounced. There may be a history of habits of eating or drinking which would cause irritation of stomach, or duodenum. The patient, when reminded of it, may be able to recall occasional symptoms of indigestion existing over a considerable period of time.

Pain is present in practically all of the fully developed cases. However, attention is called to the probability that in the early history there may be little or no pain. It may vary from a simple sense of weight, tightness and fullness, to an aching, or it may be even sharp or colicky in character. Its location is not particularly characteristic, being in a general way in the epigastric region. One of the most significant features is that it is not affected by taking food. In this way it differs from the pain found in connection with gall bladder or ulcer. It is probably enhanced by the ingestion of carbohydrates.

Nausea, with occasional vomiting, is nearly as constant as pain, and in many cases precedes the pain. This may be explained from the fact that in practically all cases, organs more closely associated with the stomach have been diseased before the pancreatitis developed—cases not associated with cholelithiasis, but few in number, are likely preceded by some infectious condition of gastric or duodenal mucous surfaces.

Jaundice has been found in nearly two-thirds of the cases, even in the cases not associated with gall bladder disease. This may be explained by reference to the anatomical relation of the choledochus to the head of the pancreas. In approximately two-thirds of the cases the duct is surrounded by the tissue of the pancreatic head. When it is inflamed the resultant swelling causes it to squeeze the duct with the result that there is a mechanical obstruction to the passage of the bile, and jaundice follows. Deaver remarks that "it is certain that many cases of so-called catarrhal jaundice may be explained in this manner."

It must not be forgotten that in many cases the absence of jaundice is not inconsistent with the existence of pancreatic inflammation—this on account of the lack of constancy in the relation of choledochus to pancreas.

A few years ago the announcement was made by Cammidge that he had



succeeded in elaborating a test through which it was possible, by an examination of the urine, to determine whether pancreatitis existed. He was supported in his claims by both Robson and Moynihan, and it was hoped that much good might come of it. In the United States, however, investigators—notably, at the Mayo clinic and at Deaver's clinic—have come to the conclusion that the "Cammidge reaction" is not at all reliable.

In the average case there may be little, or no, fever, except during an exacerbation. In most cases there is a history of exacerbations at which times there has been fever, usually of a moderate degree, and in a few cases chilliness and sweats.

In the early stages too much importance must not be placed upon the character of the stools. In the classical description the stools are referred to as "frequent bulky motions, pale in color, offensive and obviously greasy," but it has been pointed out by Robson and Cammidge that such stools are seen only in advanced conditions.

Not very much positive information may be obtained from the physical examination. The gland is a retro-peritoneal organ. Palpation through the abdominal wall and interposing viscera is so unsatisfactory that even in the cases of considerable enlargement it is difficult or quite impossible to make out. During an exacerbation there is likely to be tenderness and rigidity in the epigastrium. In very thin subjects with considerable enlargement it is possible to feel an indistinct mass when the examination is made during the quiescent state, when the abdominal wall is flaccid.

Fortunately from a diagnostic point of view, the large majority of the cases are associated with disease of the biliary tract. This gives a good starting point from which the investigation of symptoms may proceed in a more orderly way.

The treatment of chronic pancreatitis is surgical, and consists in the drainage of the pancreatic ducts. Mayo Robson was the first to show conclusively that this may be effectually done by drainage of the biliary tract. If the organ has not been too nearly destroyed, such drainage will, in most instances, result in relief to the patient and restored function of the gland. The simplest operation is a cholecystostomy. Drainage should be kept up for at least three or four weeks.

I can think of no more fitting way to terminate this paper than to quote the concluding paragraph of the paper of Deaver, referred to above:

"The surgeon today makes the same plea for chronic pancreatitis as he made twenty years ago for appendicitis. Send patients early before complications create a mortality."

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### **DIGESTION AS AFFECTED BY CHRONIC APPENDICITIS OR WHY DOES CHRONIC APPENDICITIS AFFECT DIGESTION?**

**By Millington Smith, M. D., Oklahoma City, Oklahoma.**

The subject allotted me in this symposium is one of the most difficult subjects I have endeavored to present.

This condition is of such frequent occurrence that we, seeing cases of it almost daily, pass it by as unimportant—taking so many things for granted we have never called a halt long enough to consider and investigate the real pathology, which is as yet not very well understood. It brings to us forcibly the limited knowledge we have, not only of this condition but many others I might mention.

When a patient comes to us suffering from indigestion we at once begin to seek the cause of this indigestion. First the stomach is thoroughly

looked over, contents examined, etc.; if not satisfied, we turn our attention to the gall bladder and then if we have not yet found the cause we investigate the ever-offending and omnipresent organ—the appendix, which is held accountable for a multitude of sins, frequently paying the penalty by being removed and in many instances the indigestion is entirely relieved.

Now there is a cause for this, and I am going to try, in a crude way, to get at this cause.

We know the appendix is a rudimentary organ, constituting a portion of the principal alimentary canal in early embryonic life, later to become a useless appendage, at least so far as we know at the present time. Why the appendix should be so prominent in the production of digestive disturbance is only explained through its circulatory and nerve supply. Principally the latter, being directly connected through the distribution of the vagus and its connection with the coeliac plexus of the sympathetic nervous system.

We know from our anatomy that the superior mesenteric plexus which is a continuation of the coeliac plexus, supplies practically the entire intestinal tract, appendix included; therefore, we can, to some extent, understand why we get digestive disturbances from a chronic inflamed appendix. This digestive disturbance may be caused by the constant contracting of the appendicular walls or from just its opposite, a continual pressure from within the appendix itself. No doubt the irritation about the ileo-caecal junction causes more or less contraction of cecum, along with this spasm there is in all probability liberated a certain amount of toxins that contribute its part in the production of gastric symptoms.

Upon the same hypothesis we can account for the numerous reflexes in women with many pelvic diseases. It is at last summed up by the word "reflex"—a term broad in its use, a good hiding place for our meager knowledge of what the pathogenesis of the term really is.

As before stated, it is not an unusual occurrence for a patient to come to us with the following symptoms: Sour stomach; pain after eating; irregularity as to time of pain; more or less tympanites; gaseous eructations; occasionally acute colicky pain radiating over abdomen; frequently slight tenderness on pressure over McBurney's Point, due to hyperaesthesia of right lumbar ganglia. In some of these cases emaciation is plain to be seen; others nutrition not materially interfered with; constipation is the rule, still we sometimes have diarrhoea. Under conditions like this we have three principal organs to suspect: Stomach, gall bladder and appendix, in the male; in the female, the pelvis as well.

Those of us doing surgery know how difficult it is to eliminate gastric ulcer or duodenal; certain types of cholecystitis or gall stones from a chronic appendicitis, and no doubt we have been very much humiliated to find, in operating, our diagnosis changed from a suspected stomach or gall bladder operation, to one of simple catarrhal or fibroid appendix.

I cannot refrain at this point from saying that the removal of the appendix under conditions as previously stated and its curative effect was discovered by chance! The surgeon investigating the stomach, gall bladder, etc., finally turned his attention to the appendix, removing it more for spite than for real reason, accidentally cured his patient of all digestive disturbances.

I have examined a number of the latest and best authorities on this subject hoping to get comprehensive and definite data upon which I could more intelligently explain the pathology of this condition, but failed. I have observed this condition so many times in days gone by and semi-

contented myself with giving medical treatment. I feel I owe an apology to these patients, but along with my host of medical and surgical friends, I am not in position to offer same.

### DISCUSSION.

DR. HARRY E. BREESE, Henryetta:

I am glad to hear this medical and surgical symposium. Every doctor in the state should read these papers carefully. Fewer mistakes in diagnosis would be made and more lives saved.

However, I shall limit myself to the paper by Dr. Smith. After a long discussion on appendicitis at the Muskogee meeting, I remarked that diagnosis was the vital study; many of the so-called medicinal cures were bowel impaction. A very small per cent of true appendicitis ever has a spontaneous cure.

All surgeons have seen appendicitis or walled off sinuses, containing pus, which according to their respective histories, must have contained pus, at various times, if not all the time for months or years.

I like the delicate points of diagnosis in Dr. Smith's paper relative to indigestion. One of my patients gave a history of indigestion and colic of years. Of course the attacks were several weeks or months apart, at first, but gradually the interval of apparent good health grew shorter and shorter till the last year prior to the operation; attacks were about every three to six weeks, excruciatingly painful, each attack preceded one to three days by a light jaundice, maximum doses of morphine and chloroform were required to save death from shock from the seemingly gall stone colic. The operation revealed a perfectly normal liver but a highly inflamed appendix, in normal position, containing pus. It has now been the larger part of a year since operation and the patient regained good health. While appendicitis was diagnosed, we also included liver trouble with a probable ulcerated duodenum.

DR. BLESII: In reading this paper, my part of the symposium so carefully thought out and arranged by your chairman, I had hoped that the discussion would widen out and that you internists would at least give us a "chase for our money."

My surgical experience teaches me that when the diagnosis of duodenal ulcer has been made the case then and there ceases to be medical. In making this statement I do not wish to be understood as saying there are no cases which will not recover without surgery. What I do say is that we have no medical treatment that will in anywise facilitate a cure, and while in all probability there are now and again spontaneous recoveries, by far the larger majority will sooner or later become imperatively surgical. Therefore the sooner we submit them to operation the better the result and the less risk of life and health. It is vain to trust to the doctrine of *laissez faire* in the hope of a spontaneous cure for we do not know which cases will and which will not so recover.

QUESTION: You spoke in your paper of acute ulcer and the treatment of that as medical. When does an acute ulcer become chronic.

DOCTOR BLESII: When speaking of an acute ulcer as sometimes amenable to medical treatment I referred more especially to acute gastric ulcer and not duodenal ulcer. I stated that an acute ulcer may become chronic. It is quite sure that the acute ulcer alone is capable of spontaneous cure. When once large deposits of cicatricial tissue has occurred it is not likely that we will have a spontaneous cure happen.



I am unable to sharply define clinically between an acute and chronic ulcer, but the two classes in their extreme manifestations stand out clearly. There is a broad line of demarkation between the advanced types by means of which we can easily recognize clinically the acute on the one hand and the chronic on the other. Ordinarily they offer no difficulty in differential diagnosis, but I do not want to be understood as saying that I can clinically separate the one from the other in the border line cases. This fact is not only true here, but also in all borderline cases everywhere.

I wish to repeat that I had hoped the internists would take exceptions to some of the main propositions in this paper so that an interesting discussion might have arisen. I particularly hoped that exception would be taken to the statement that "Every severe, persistent hypochlohydria IS duodenal ulcer." Here lies the crux of the matter, for it is just these cases that are so persistently treated as "acid dyspepsia." Many times this is the only symptom that can be elicited without the most careful questioning. This symptom so overshadows everything else in the mind of the patient that all else is overlooked. Temporary relief is obtained by administration of alkalies and antacids and the various proprietary, semi-proprietary and patent medicines but the patient never reaches a condition wherein he can "forget" that he has a stomach.

With this in view I repeated this statement to Dr. Moorman before coming to this meeting in order to prepare myself for the expected onslaught from the internists, but to my surprise, after due deliberation, he stated: "I believe that is correct." Ten years ago this statement would not have gone thus unchallenged and the fact that it does do so speaks well for the education of the general profession in this matter by the surgeon.

The central idea of this paper is that in the last analysis there is any longer scarcely such a pathological entity as "dyspepsia." Except as a symptom the name will soon be dropped from the nomenclature. More and more as time goes on will it be eliminated from the literature and it will take its true place as descriptive of a symptom behind which may be lurking one or more of several pathologic possibilities. Just glance over what has been done within the last few years in the way of accomplishing this! For years no one thought that gall stones, pancreatitis, appendicitis and gastric and duodenal ulcer had any particular thing to do with "dyspepsia." For years all this vast realm was terra incognita to all of us. It has been only very recently that gastric and especially duodenal ulcer has been thought of at all in this connection. They were looked upon as somewhat rare conditions occasionally found during autopsy and absolutely not clinically to be diagnosed at all during life. The surgeon has placed upon a definite pathologic basis these so-called diseases which have so long sailed under the flag of bilious indigestion, dyspepsia and even common old biliousness.

Dr. Moorman has proposed that there might be an indigestion due to the absence or deficiency of peptic glands in the stomach. But after all the stomach has much less to do with digestion proper than we commonly think, the main end of this being accomplished in the intestines. The stomach may be removed both from the animal and the human being with impunity and digestion will continue apparently none the worse. After all, the stomach may be considered more as a mixer in which the food is churned up with the acids and secretions, after which it is passed on into the intestines where the main end of digestion and assimilation is accomplished.



DR. W. R. BEVAN, Oklahoma City:

The terms gastric and intestinal indigestion are somewhat vague for they signify the end result of a condition rather than the condition itself.

As the science of pathology advances, the number of conditions classified as gastric and intestinal indigestion become less and less. At present, however, there are a number of gastric and intestinal disturbances for which we know no definite pathology. A certain percentage of this class of cases defy all methods of treatment, both medical and surgical, and are benefitted, mainly by a close application of dietetic principles. It is a noteworthy fact that the science of dietetics has not kept pace with the progress made in the other sciences of medicine, and a word or two along this line is all I have to say.

The chief functions of food, briefly speaking, is either to produce energy, or to build tissue, and the food must be of the proper quality and quantity and must also be properly proportioned between the proteins, carbohydrates and fats.

We are inclined too frequently, I fear, when we find these cases of gastric and intestinal indigestion, for which we know no definite pathology, to restrict the amount of protein food; but late investigations have shown us that a great number of these disturbances are due to the carbohydrates and fats, and especially to a lack of a proper ratio between the carbohydrates and fats. For instance, if a patient is consuming large quantities of olive oil, butter, etc., and small amounts of carbohydrates, a condition known as acidosis develops, and a great many cases of so-called recurrent vomiting are nothing more or less than cases of acidosis, and can be cured by restricting the amount of fat, or increasing the amount of carbohydrates and a few doses of sodium bicarbonate.

And so on down the line of gastric and intestinal disturbances, we find a list of troubles which resist all surgical and purely medical efforts, but which may be relieved by applying the science of dietetics to their complaints.

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DOCTOR EWING: I would like to place particular emphasis on the definite findings of the particular cause of these intestinal disturbances and intestinal indigestion. There are so many features that enter into the gastric cases, I would like to place particular emphasis there and emphasize the necessity of treatment of intestinal indigestion—clean up the intestine and carefully diet your patient.

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DOCTOR W. M. JENKINS, Enid:

Doctor Blesh seems to be disappointed because we didn't jump on him. He enjoys a scrap, but we have been with him year after year and he has converted us all over to his way of thinking about operating on this class of cases. He did precipitate a good many scraps by operating on all cases of appendicitis. He even acknowledged the fact that some of them would get well, but it was the principle that those who would not have gotten well that he was clamoring for, and he has converted the association to his way of thinking, and that is the reason we didn't jump on him.

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### PELLAGRA.

By. Chas. R. Hume, Anadarko, Okla.

Since Dewey sailed into the harbor of Manila in 1898 and our country suddenly advanced to a position of prominence, whereby we soon became a

world-power, our knowledge of science and scientific subjects as suddenly took on a world-wide consideration.

As a result of this new order of things the science and practice of medicine in this country has advanced farther and faster under these new influences than any or all other professions.

Tropical diseases formerly not known—or if known by name, not considered by us—are now seen in every part of our land. One of the diseases which this new order of things has recently brought prominently before the profession and public as well is pellagra.

Forty-eight years ago two cases of probable pellagra, with mental symptoms were reported by Doctor Gray of Utica, N. Y., and Doctor Taylor, of Summerville, Mass., at the annual meeting of American Asylum Physicians, held in Washington, D. C. Except one case reported by Dr. H. F. Harris, of Georgia, and one reported by Dr. S. Sherwell, of Chicago, in 1902, the disease had, from 1864 to 1906 or 1907, entirely disappeared—or at least been overlooked by writers in this country.

If we consult the textbooks published in our country during the past half century we shall find this disease generally overlooked, or if described at all, only in a stereotyped manner, and dismissed with the statement that the disease is common in some parts of Italy and Spain, but never seen in this country.

In a standard work, published as late as 1905, I found the above statement.

Pellagra has been known in Italy and other southern European countries for the past two hundred years. It was claimed by older writers to have followed the introduction of American corn about 1700. By 1735 pellagra was prevalent in Spain; by 1750 it had invaded Italy, and by 1820 it was well known in France. During more recent years it has been known in Hungary, Russia and Portugal.

In spite of authoritative denials of the existence of pellagra in this country a number of cases of the disease were recognized and reported in 1907 independently by medical officers of Alabama and South Carolina asylums.

In the summer of 1908 the disease was identified with Italian pellagra by two South Carolina physicians who visited Italy for the purpose of studying the disease. Following these observations the matter was taken under consideration by state boards of health in the south. The U. S. Public Health and Marine Hospital Service and several individual observers.

Letters of inquiry about pellagra were addressed to the superintendents of state hospitals for the insane in all parts of the country and answers elicited from these questions brought out the fact that the disease was widely distributed through the country, even to many of the more northern states. These letters came to the attention of Illinois superintendents during July and August of 1909, and cases of the disease were soon found in Peoria and Kaukahee hospitals. The superintendent of Peoria hospital says that he was astonished to find on first discovery at least sixty cases of the disease.

On November 3rd and 4th, 1909, a National Conference on Pellagra was held under the auspices of the South Carolina State Board of Health, at the State Hospital for the Insane at Columbus, South Carolina. This meeting was attended by representatives of prominence from state boards of health, U. S. hospital and marine service, superintendents of state hospitals, both in this country and England.

It was estimated in 1909 that there were 1500 cases in the south. In

1910 it was estimated that there were more than 5000 cases in the United States.

Dr. D. W. Griffin, superintendent of Oklahoma Hospital for Insane at Norman, in a report to the State Board of Health, in 1910, says: "We have had four or five deaths from the disease during the past year, and there are now a dozen cases in our wards." He further says: "I have combatted with this disease for many years, for a long time not knowing what I was dealing with."

The Secretary of South Carolina State Board of Health says that there seems little doubt that the condition now recognized as pellagra has existed in the southern states for the past twenty-five or thirty years at least, and has been regarded as an unusual manifestation of tuberculousis, syphilis, acute delirium, dermatitis, eczema, etc. Several physicians, in general practice, in our state have recently told me that they are now able to recall well-defined cases of the malady that have occurred in their practice during previous years.

Following the opening of the Peoria, Ill., State Hospital in 1902, as the Illinois asylum for the incurable insane, until 1907 there were many accusations and investigations wherein the death of patients was attributed to carelessness on the part of nurses and attendants. In some cases death was attributed to scalds, while being bathed, by a careless and incompetent attendant. Again, attendants were accused of allowing patients, who were taking sun baths on porches and on the grass, to remain long enough to sustain severe sun-burns on the hands and exposed parts. Attendants were strongly admonished to beware of sun-burns and scalds, and in some cases attendants were unjustly dismissed for supposed carelessness in these matters.

These erythematous manifestations became so frequent, supposedly due to carelessness and incompetency that it became almost a state-wide scandal, and the report says that not a physician in the state could be found who would attribute it to any other than the causes mentioned.

Superintendent Zeller's report says: "However, when Assistant Physician F. J. Griffin reported a patient showing symptoms of the disease I went to the bedside at once with him, and in one minute the scales of seven years fell from my eyes. I went from ward to ward and within an hour saw a dozen cases. Instantly I recalled the scalding and the ease that had called for explanations. A hasty reference to the literature only strengthened my conclusion that we had been dealing with pellagra unconsciously all the time."

If specialists and experts have so universally failed to recognize the presence of this disease in the past, we as general practitioners need make no apology for our shortcomings in the matter.

While the etiology of pellagra is obscure the disease has almost unanimously been regarded as a food poisoning, allied to ergotism or beriberi, and attributed to the use of maize as an article of diet.

Such a thought apparently might have been founded to some extent on an historical basis, medical men having found a new disease of striking characteristics sought for some new active cause to account for it.

As the introduction and subsequent cultivation and use of this grain as a food occurred in Europe about this time, pellagra was believed to have followed in its wake. In whatever way it may have occurred, the corn theory in some form originated almost simultaneously with the discovery of the disease, and from then until now has held a dominant place in the consideration of its etiology.

This idea was for a long time entertained in a loose, vague sort of way.



About 1810 Marzari formulated what he called the Zeist (from Zea Mays) school. Marzari's idea that corn caused pellagra by its deficiency in certain nutritive principles was soon supplanted by Balardini who first introduced the view that the disease was due to a certain mold sometimes found on the grain. The greenish color of the mold gave the name verdet to this theory. Balardini was thus the inspirer of the idea that pellagra is due not to the use of good corn, but to the use of damaged or fermented grain.

As might be expected in a disease of obscure etiology, theories are numerous and it has long been customary to divide all theories of pellagra into two general classes—the Zeists, who hold the view that there is some relation between corn and pellagra; and the Anti-Zeists, who oppose this view.

In support of the maize theories the following general statements are made by the Zeists:

First: The disease appeared for the first time in Europe after the introduction of maize from America and followed the extension and cultivation of this new grain as an article of food.

Second: Pellagra is found epidemic only in countries where maize is extensively used as an article of diet.

Third: Pellagra diminishes or disappears among individuals where maize is eliminated from their dietary; or is likely to appear among people who adopt this cereal as a large part of their food supply.

The Anti-Zeists, or those opposed to the corn theory, have heretofore been greatly in the minority, but under the more recent stimulation of certain new ideas their side of the question has created wide-spread interest.

The extensive territory over which corn is and has been cultivated and used as food for many generations without the appearance of pellagra; the numerous cases of pellagra which may be found among individuals who do not use corn in their dietary; especially the peculiar topographical distribution of the disease, even in marked endemic centers—all such observations readily lend themselves to oppose the theory of a food poison from maize.

The idea that pellagra is a parasitic disease, transmitted by a blood-sucking insect first promulgated by Sambon of London, and suggested by him in 1905. Since then he has given the subject much consideration, and is still investigating. As yet he has not expressed any definite opinion as to the nature of the parasite, but thinks it may possibly be a protozoal organism. The transmitting agent, however, he thinks he has shown to be some one of the species of simulium or buffalo gnat. He bases his theory upon the analogy of pellagra with certain insect-borne parasitic diseases.

Upon important epidemiologic studies made by him in Italy, and upon the agreement existing between certain phenomena peculiar to pellagra and the distribution, characteristics and life history of this fly. He has most thoroughly emphasized the peculiar topographical distribution of pellagra and its connection with running streams, in which simulium breeds. This peculiar local distribution of the disease he thinks can not be brought into harmony with any theory of food poisoning. Some observers in the southern states are sure they have been able to trace the disease to localities in close proximity to running streams where the sand fly is produced in abundance.

The above is but a brief summary of a part of the several theories which have been put forward to account for this obscure disease. For a more careful study of the subject, I refer you to Public Health Bulletin, No. 48, on Pellagra, revised by Surgeon C. H. Lavinder, and published September, 1911. He is of the opinion that the sand fly theories of Sambon mark a new and important departure in the field of research and de-



serve most careful consideration. He, however, says: "From a careful review of the subject it would certainly seem safe to assert that in any definite, scientific sense the cause of pellagra is unknown."

To my mind the question of the symptomatology and diagnosis of this disease is of the most vital importance to the general practitioner.

Dr. Harris, of the State Board of Health, of Georgia, says: "It is unfortunately true that practically all of our American literature on pellagra has emanated from sanatoria for the insane." Hence it follows that the overwhelming bulk of our clinical descriptions of the malady apply to its very last stages, and are of no value whatever in helping us to recognize its earlier manifestations, which is the only period at which we can be of any great service to the unfortunate victim. These alienists viewing the symptoms as they occur in advanced pellagrous persons have generally spoken of the disease as observed by them as being "acute," while as a matter of fact there is no such thing as "acute pellagra"—it being a malady remarkably chronic in its nature.

The clinical picture of a well-defined case of pellagra is so striking and impressive, that when once seen it can never again be mistaken. The emaciated and generally debilitated appearance of the patient; the dejected and anxious countenance; later, the disposition becomes petulant, irritable and impatient, with a decided disinclination to exertion. A bright red erythematous area appears on the dorsum of both hands, symmetrical in its distribution, forming a curved line of demarkation as it fades above the wrist. The eruption sometimes appears on the dorsum of the feet and sides of neck and face.

The eruption is at first red, resembling sun-burn, but may after a few days change to a purplish red or reddish brown, with slight edema. After a few days small blisters may form; the eruption then dries and small grayish scales form and fall off. The dorsum of the hands and skin between the fingers remains pigmented, dry, cracked and fissured. The buccal mucous membrane and gums red, congested and ulcerated; tongue red and inflamed, all culminating in a condition of profuse salivation.

The foregoing description points out some of the prominent symptoms observed in a well-defined case of the malady, but this is usually the culmination of a train of disorders that may have existed at intervals for months and years previously—such as gastro-intestinal disturbances, attack of extremities, with or without the characteristic erythema.

These disorders occurring usually in the spring may subside in a few weeks, to reappear in a more aggravated form the following spring.

The prognosis in pellagra is always serious. If the disease is recognized early in its course before mental and physical debility have progressed too far, recovery or improvement at least, may be hoped for. The high mortality thus far reported in America is probably due to the fact that when they are for the most part patients in a late stage of the disease when first recognized.

Those who apparently recover may again come down with an acute attack after many months or years. Pellagra is not a febrile disease therefore the occurrence of fever, especially when high and constant, with a daily pulse rate considerably above one hundred and steadily progressing emaciation, especially if accompanied by constant diarrhoea, constitutes a condition that may speedily end fatally.

Treatment: So long as the originating cause of the disease is unknown we may speculate as to the factor producing it and our treatment will be in a large sense empirical. Arguing that it presents many symptoms due to some toxic substance, quinine, especially hydrobromate, salicylic acid,

urotropin, etc., have been recommended and in some cases good results claimed.

Thyroid tablets have been given in a number of cases with no results. Arsenic has long enjoyed a reputation in the treatment; Fowler's solution, in increasing doses has been extolled by Italian physicians, but has not given in this country the results claimed. The newer arsenical preparations, such as soamin, arsacotin, caccodylate of sodium, and of late Salvarsan—all of these deserve more extensive consideration.

Dr. E. H. Martin, of Hot Springs, Arkansas, read an interesting paper at the 6th annual meeting of the Medical Association of the Southwest, last October, on the treatment of pellagra with injections of soamin and Salvarsan, to which I will refer you for more complete consideration of this line of treatment. Dr. H. P. Cole, of Mobile, Alabama, has reported the successful treatment of several cases by direct transfusion of blood. This operation, however, would require surgical skill and experience. It would also indicate that the discovery of a successful serum may be expected. A change of climate to one colder and to a higher altitude is recommended.

During 1911 I had the opportunity of watching the progress of two cases that occurred in our vicinity.

The first was the case of a young man, in Anadarko, age about 30. This was characterized by a rapid development, with early appearance of a grave condition. He was referred to Dr. Lain, of Oklahoma City. Following the reaction from an injection of 606, his general condition seemed rapidly to improve erythema of hands cleared up; buccal membrane and tongue healed, and pulse came down below 100; when suddenly he showed symptoms of heart weakness and collapse, death following soon. The autopsy revealed a well-organized blood clot in the right auricle, and evidence of healed ulcers of the bowels.

In July, 1911, I saw a well-defined case in Lawton, with Dr. Lewis. This was a lady, about 35 years of age, with erythema of hands, peculiar mental and gastro-intestinal symptoms all well-defined, but in a milder form than case 1. I lost sight of this case, until a few days since, when I learned that her disease progressed in a chronic form until late last fall, when it cleared up, and at present she is apparently in her usual health—but probably as the season advances the disease will re-appear.

In the short time allotted me I have been able only to outline, as it were, the salient points of this interesting disease. The discussion of any phase of pellagra would furnish ample material for a paper of this length.

I trust that the discussion elicited may bring out and emphasize the points of most practical interest and that you will then feel that the time consumed in considering some of the aspects of pellagra has been profitably spent.

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## DISCUSSION.

**Dr. A. A. Thurlow, Norman.**

The paper on Pellagra seems to be very comprehensive, and I consider myself fortunate to have been present at the reading of the paper by Dr. Hume.

My experience with Pellagra has been short. I have seen only a very few cases before coming to the institution at Norman, and I found that Doctor Griffin had already pioneered in Pellagra in this state. I can only state the few cases we have had since I have been there. We all heard, I believe, Doctor Martin's paper at the meeting of the Southwestern Medical

Association, and it seemed to me that in his theory of the etiology of Pellagra he left a big gap between his idea that it was caused by Spirochaetes, on account of the fact that Salvarsan produced a reaction in such cases, and the true nature of its etiology as shown by pathological findings.

The fact that the symmetry of the lesions is a usual thing, and in fact it is almost invariable in any case that we can diagnose conclusively, seems to point to the fact that we have a central nervous system disturbance. I have found that, as a rule, emaciation precedes the development of the lesions. It is rather a marked loss of weight. I have also found them on the patients who have not been exposed to the sun, as well as those who have been. We have had two cases within the last week that developed the skin lesions, but as yet have shown no diarrhoea.

The actinic rays of the sun are supposed to have a large influence on the development of the disease. Our cases seem to be developed mostly in the congenital types of insanity rather than the acute types. We have a few more cases in the wards filled with idiots and imbeciles than the others. We have used sodium cacodylate to quite a large extent. We have not used the Salvarsan on account of the dangers we find are attendant upon its administration.

The use of sodium cacodylate has yielded some results in some cases that we can say are directly attributed to the drug itself. We have had more cases upon the female side that have cleared up after a course of sodium cacodylate than on the male side. There are a great many cases on the female side improved after a course of the salvarsan, although the mental condition has never been restored, except in one case in the last year.

The course of intestinal treatment we have experimented with had produced nothing but symptomatic results. So far as my experience goes, I have got as good results from Fowler's Solution as I have from the sodium cacodylate.

The spring of the year is supposed to be favorable to the development of these cases and I am expecting to learn a great deal more about Pellagra during this spring than I could learn last spring or winter. The fact that so many of these cases are rapidly fatal, and the fact that our patients are patients upon whom we cannot rely for symptoms, makes the progress along that line much more slow than it would in a case of the same kind in a patient upon whose statement we could depend.

In conclusion I wish to again express my appreciation of Dr. Hume's most able paper.

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DR. C. R. DAY, Oklahoma City: I was very much interested in this paper for pellagra is to be found among us and because we want to know the etiology of the disease. As long as we are unable to comprehend the etiology of any disease we are going to be in the dark when it comes to the treatment. Various theories have been advanced regarding the etiology of pellagra. So far none of them have proven the positive factor. One of the latest theories that I have heard advanced is that hook work is the cause of pellagra. This, like others, is a theory and remains to be either proven or disproven. There is one thing that has made an impression on me in the study of the cases of pellagra that have come to my notice and that is the point emphasized by Dr. Thurlow, that there is a general weakness of the system which usually supercedes the skin manifestations. This weakened condition may be the result of some other severe disease which results in atrophic changes to be followed by pellagra. Since this is true might we not believe that pellagra is a symptom of some diseased condition of the trophic nerve centers and not a disease within itself? This is



a question that seems to me to be one worthy of our careful consideration.

Only yesterday I saw a young man twenty-two years old, who had lived in the state of Kansas until the last two years. Since that time he has been living in Oklahoma City. This spring he was out doors a little more than common and developed, as he thought, severe sunburns on the back of his hands, which he treated with cold cream and like preparations without results. Within the last few days he has been suffering with severe diarrhoea, growing much weaker, and is becoming very nervous with mental disturbances. He is going the course of many of the severe cases of pellagra. He is a man addicted to the use of alcohol to an excess. His system is, therefore, very much weakened. The termination of this case may be expected in a short time.

Where cold cream does not cure sunburn and we are compelled to diagnose pellagra, death is the result in every case I have been able to follow to the termination. I am inclined to question the diagnosis in every case of reported, cured pellagra.

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DR. L. J. MOORMAN, Oklahoma City: I am very glad to have heard this most interesting paper of Dr. Hume. I just want to ask him a question or two about the case he reported. As to the heart, whether there was any evidence of heart weakness or heart lesions before he had Salvarsan and how long before he developed the heart weakness? I believe that in these cases, so long as we do not know the etiology, we should be careful in the treatment of the disease. We have no established evidence that we are going to effect a cure, and I believe it is an established fact that arsenic in large doses may cause degeneration of the heart muscle; it also predisposes to hemorrhage or degeneration of the walls of the arteries.

I am sure that I had one case in which I used the cacodylate of soda over a period of time perhaps longer than I should have. In this case there was a weakening of the heart muscle. I thought perhaps it was due to the use of arsenic. I should like to know if any one else has had similar experiences?

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DOCTOR D. W. GRIFFIN, of Norman: I have been dealing with these cases for something like fifteen years. I never recognized it as pellagra until about three years ago. Doctor Day has pretty well brought out my ideas as to the real cause of pellagra. It has been a question in my mind for some time whether or not pellagra is a disease within itself. I have noticed it coming on in cases that are in the last stages of tuberculosis; it seems to come in the last hours of life to add to the agony of the patient. In all reduced conditions we find pellagra in nearly all of these cases. Take our ward that is made up of idiots and imbeciles; these patients as a rule do not live very many years and as a rule they waste away. In the very last few days of life this disease appears. This has lead me to believe that it is a symptom of a depraved condition of the general system. We find that when we can bring about a reaction in the patient's general health we improve his pellagra. I believe there is going to be a benefit from the arsenic in any form you can give it. I believe you can build up his general health. I remember a while ago I had a case that worried me a great deal. A young woman, perhaps twenty-five years old. She came to us with cancer of the stomach. Six weeks before that woman died there was the most horrible looking case of pellagra that I ever viewed. She was broken out over the hands and feet and neck, the same as if you had charred the skin with a red hot iron. This skin manifestation did not come on until the very last stages of the cancer.



I enjoyed Doctor Hume's paper very much, and I am glad that it was brought before the general session of the society, because I think it is a thing that doctors should know more about, and I hope as many of the general practitioners will enter into the discussion as possible.

DOCTOR J. M. HARBER, of Seminole: I would like to report a case, the only case that I have seen, except one I saw at Shawnee. I had a boy that I treated for at least four years, during the hot season, for chronic malaria, and he had been treated by at least one doctor in Shawnee and one in Wewoka and one or two in Arkansas for malaria, and I treated him for chronic malaria, for at least three seasons. I came to Shawnee and saw a case of pellagra and as soon as I saw this case of pellagra I diagnosed my case at home, or at least I thought it was so. I told the boy's father when I went back that he had pellagra, and if that was not what was the matter with the boy, I didn't know. I said, "If you say so, we will take him to a specialist somewhere and see what he has." He said: "All right," and we took him to Dr. Day at Oklahoma City, and he affirmed the diagnosis. The boy then had a severe diarrhoea and was considerably weakened: had the eruption on the back of his hands and had it on his feet, so Doctor Day recommended treatment, and we put him on the treatment. The boy went ahead with the diarrhoea and got weaker for a while. As cold weather began he improved and got fleshier, so during the winter his cheeks got red—he had always been pallid and pale—and he quit the treatment then. A few weeks ago he came back to me and said he was feeling bad again; he was developing the diarrhoea and getting weaker and pale again, and I don't know whether—I suspect we may be able to carry him through this summer and next summer, but I merely report this to show how I was fooled on him for three or four seasons. One doctor in Shawnee had said to his father: "I don't think there is any question but that I can cure it, as chronic malaria." He sent him to Eureka Springs, Arkansas, and a doctor there said that the doctor at Shawnee ought to have cured him. This season he is again becoming weak and anemic, and I just mention this—I notice that Doctor Hume reported a case where a doctor said he had been mistaken for seven years—that one fooled me for at least four years, and then I saw a case that some other doctor had diagnosed. I say freely that I think there is more pellagra in the country than the doctors recognize. I have at least three or four cases that I believe have pellagra.

DOCTOR LAIN: In one patient we made a careful examination of his heart before administering the Salvarsan, and found a very rapid, soft pulse and slight murmur, very like an anemic murmur.

The autopsy showed us the reason of this pulse. Almost the whole of the right side of the heart had undergone fatty degeneration. The right auricle was a clot. He had some fatty degenerations through other parts of the body. We didn't examine the nervous system. About eighteen inches of the ilium showed evidences of having been very much ulcerated. Three or four places were almost at the point of perforation. One was perforated, which was the immediate cause of his death. He died of peritonitis. The entire intestinal tract showed evidences of irritation. I have seen one case since then that showed very similar results.

On looking up the autopsies which have been held on these cases of pellagra, I find a few things which are found in practically all the cases; of course in many cases there is a few lesions developed, but nothing as yet very specific, which characterizes these from any others.

A few things which are common, as I have noted in the autopsies, are fatty degeneration to a more or less extent. Marked evidences of gastro

intestinal irritation. This is very similar to conditions we find in typhoid fever, with the exception, as noted by almost all who have held autopsies upon pellagra, that the laceration is more extensive. I believe if we would ask for autopsies in all these cases we would obtain an autopsy in most of them. I learned just before I quit the general practices that I had missed a great deal by not being diplomatic enough to have the courage to ask for an autopsy. You can have an autopsy in a great many private cases if you want to ask for it in private cases. When you explain to people what you want—that it is a new disease, and something must be learned about it, and if you want to give them a few references, you can tell them that most of the statesmen, senators and presidents have autopsies performed when they die. We may learn a great deal more about this disease. Pardon me for referring to one thing that Doctor Griffin referred to. In a few cases, pellagra is a successor to some previous constitutional disease. I have noted one case in cancer. We had one case which died in Oklahoma City, cancer of the uterus and vulva, and I have noticed some cases following tuberculosis and one case following Bright's disease. Now, Doctor Griffin's suggestion that possibly this is one symptom or sequela of these cases but on the other hand we can also remember that we have other diseases which are very common successors, or engrafted upon such diseases as Bright's, tuberculosis, etc. We have all seen cases that developed something else, which became the immediate cause of death.

DOCTOR HUME (closing): I am gratified for the way the paper has been received. There is one point with regard to the heart and the prognosis of these cases.

In a letter from a doctor at Atlanta, Georgia, he stated that when he found a case with a rapid pulse—about one hundred—that the prognosis was grave, but if the pulse rate was below a hundred, you might expect to improve the case, and might expect it to last a good while, but didn't give much hope of eventually curing the case.

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### THE ECLECTIC LIGHTNING-BUG CONVENTION.

J. M. Alford, M. D., Oklahoma City, Oklahoma.

At the last meeting of the Eclectic Medical Association in this city they passed resolutions denouncing the bill introduced in our upper house of congress by Senator Owen providing for the establishing of a National Department of Public Health. There was some opposition to the resolutions but a majority of the members have by this act put themselves on record as being opposed to the bill. I consider these resolutions as an unjust assault upon the honesty of purpose and high standard of service of one of our best National Senators. They are really unworthy of notice, but since honest and well meaning people may be misled by such utterances it seems proper that some one should call attention to their fallacy.

The entire affair reminds me of that celebrated convention which is said to have taken place among the lightning-bugs. It seems that the lightning-bugs reasoned that because nature had given them the power to emit light that all other luminaries, and especially the sun, should cease to exist. They claimed that the moon and stars were entirely unnecessary, and that the sun with its attendant heat, was an absolute nuisance. So they held a meeting of protest and unanimously agreed upon the following preamble and resolution: "Whereas for many ages, without formal protest, our light has been extinguished by day through the imperious and

(*Read before Oklahoma County Medical Society, June 8, 1912.*)

despotic disregard of the sun; and whereas over half of our glory and influence has been lost to this suffering and injured world; and whereas nature has allowed an unjust discrimination against us in the unequal distribution of time and light by the sun; and whereas we think there is no necessity for the sun at all; and whereas we think, in the light of the lightning-bug, the sun is a great hum-bug; therefore be it resolved:

First, That we hereby enter our solemn protest against the sun ever rising and shining again.

Second, That in case our protest against the sun is not favorably received we hereby institute and organize an indignation meeting, to be held at this place every night for one month until we extort from nature proper consideration for our rights, privileges and liberties so long disparaged and trampled upon.

Third, That in the event that our protest and indignation fail, a general convention of all the lightning-bugs of this country and of the world be called for the purpose of organizing a general revolution against nature.

Fourth, That if revolution and rebellion fail, after having done all we can to assert our rights and liberties for the good of the world, then we hereby pledge ourselves and our general fraternity to permanently withdraw our light from the face of creation.

Fifth, That a copy of these resolutions be sent to Dame Nature and her favorite sun, if indeed he shall ever show his face again."

Now just what there is in the Owen health bill that is objectionable to the Eclectics is more than I can understand. It is not a piece of class legislation. One clause of the bill states specifically that there shall be no discrimination in favor of any school of practice. And, being medical men, surely the Eclectics believe in the law of the survival of the fittest, then all they can honestly ask is an equal opportunity. Furthermore, I can not understand how any set of medical men can claim to have an interest in the health of our Nation and stand opposed to a measure which has for its chief purpose the promoting of hygiene and sanitation. And their sudden concern over the funds of our National treasury seems to me the most absurd reason they could have possibly offered. If they are sensible physicians they know that the preventable sickness that comes to us each year costs many times the amount that would be required to prevent it.

We are spending millions for pensions, millions for the maintenance of our army and navy, millions for our rivers and harbors, millions for public buildings and even enormous sums for the suppression of disease among our hogs and cattle. Surely the health of our people is of sufficient consequence to justify the use of a sum of money which would be small compared to the other expenses of our government.

Just as a practical illustration of what can be and has been accomplished, let me call your attention to the work of our public health service in the Panama Canal Zone. It is an acknowledged fact that one of the chief reasons for the failure of the French company to dig the canal was on account of the ravages of disease among the employees. It is said that yellow fever, malaria and tropical dysentery killed off the laborers almost as fast as they could be shipped in and that the amount of sickness was something frightful. The fact of the place being unfit for human habitation and the enormous graft of the managing officials finally wrecked the company and forced them to abandon the enterprise.

The first thing our government did when it undertook the work was to send a large and capable force of sanitarians to clean up the Zone so



it would be habitable. These men did their work intelligently and effectively for the amount of sickness now there is surprisingly small, and, aside from deaths due to accidents, the Zone has a lower mortality than any city in the United States. When the canal shall have been completed it will be a credit to every department of our National government and will stand as a living monument to modern hygiene and sanitation. And the health department at Panama is under the charge of the regular medical profession and not that of any people who claim to heal by peculiar methods.

But the Eclectics are not the original or strongest set of lightning-bugs that are opposing the Owen bill. In fact they are only a branch establishment of an organization known as "The National League for Medical Freedom." This name is as misleading as it is stupendous and a more appropriate name would be "The National League for Medical Fakirs." Its membership is made up of the patent medicine interests, manufacturers of impure and adulterated foods, Christian Scientists, quack doctors, and a good number of ignorant and unthinking people who have been misled into it. They seem to have a generous campaign fund for they are maintaining a branch office in almost every state and employing a manager who is sending out tons of literature and all of it for the open and avowed purpose of seeking to bring the Owen bill into disrepute.

I am not surprised that these people are opposed to the bill. It was to be expected that they would oppose it. In fact, if they had approved it I would have been suspicious of it and would have thought it needed amending in some way. Every effort that has ever been put forth for promoting the welfare of humanity has been opposed by some form of "lightning-bug convention." Nothing can prevent ignorance, prejudice and selfishness from opposing the people who are seeking to make the world better. When Nehemiah set about to rebuild the Temple wall at Jerusalem unholy and selfish interests sought by every means they could devise, even to threatening his life, to prevent his completing the work. Galileo, Harvey, Morse, Fulton, Stevenson and Washington were all protested by "lightning-bug conventions." The efforts of Christian people to establish the Kingdom of God upon this earth will always be opposed by Satan and his servants and there will be "lightning-bug conventions" until the end of time.

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## THE ADVANTAGES OF COMBINED LOCAL AND GENERAL ANESTHESIA IN ABDOMINAL OPERATIONS.

Leigh F. Watson, M. D., Oklahoma City.

Lecturer in Operative Surgery at the University Medical School.

The disadvantages of the present methods of anesthesia are recognized by all surgeons.

Crile and Bloodgood were the first to suggest operations on the principle of anæsthesia and early demonstrated its advantages over the methods now in use.

Crile has remarked that the success of the surgeon of the future will largely depend upon his knowledge and application of the principles of physiology and psychology.

Early in his experimental work Crile established the fact that in every active animal and in man there is stored energy which may be discharged or exhausted by physical injury of sensitive parts of the body, by emotional or physical excitation.



Under inhalation anesthesia the greater part of the brain is awake and responds to injury just the same as though no anesthetic had been used. The entire subjective mind is unanesthetized and sensitive to the slightest trauma, and the production of exhaustion or shock.

Bloodgood says the recognition, prevention and treatment of shock is one of the most, if not the most, important problems in surgery today.

The method of anoci-association employed by Crile and Bloodgood consists of a preliminary dose of morphine, nitrous oxid anesthesia, when completely under the anesthetic, the brain is completely isolated from the field of operation by a careful infiltration into the latter of a 1-400 Novocain solution, before beginning operation.

The brilliant results of Crile and Bloodgood in their clinics has definitely proven the added safety and postoperative comfort to the patient when operated on under the method of anoci-association.

Crile says he was most forcibly impressed with its advantages after using it in one thousand cases (mortality of seventeen) and comparing the results with those he obtained under the old methods. His mortality was reduced less than half of that when he used nitrous oxid-oxygen alone.

With this method the patient is under general anesthesia throughout the operation.

I believe there is less shock and less postoperative pain when the operation is begun and finished with local anesthesia alone, because the nerve block is undoubtedly more thorough when local anesthesia is used for the abdominal incision.

Those who use local anesthesia for abdominal incisions have occasion to observe that an extensive infiltration of the different layers of the abdominal wall is essential for complete nerve blocking.

It is seldom possible to effectually block the nerves of the fascia, muscles and peritoneum, especially in fleshy subjects, until the skin and fat have been incised, no matter how painstaking the infiltration.

With the patient under general narcosis we have no means of knowing how thoroughly we have insulated the shock producing impulses from the brain.

Novocain is too slow in appearing and too fleeting in its effect to completely block sensory nerve impulses during the ordinary operation and the closure of the wound.

Braun and Lennander state that Novocain is unsatisfactory unless combined with adrenalin to prolong its action, and the anesthesia is not complete for twenty to thirty minutes after being injected.

Therefore, if the Novocain 1-400 anesthesia is not complete, even though the patient is under general narcosis, there will be sensory nerve stimulation and exhaustion of the brain cells with its resulting shock.

For the abdominal incision anesthesia I prefer cocaine 1-1000 (cocaine grain one, adrenalin (1-1000) minimis ten added to two ounces of normal salt solution) because the nerves are completely anesthetized within two minutes.

The cocaine 1-1000 solution is perfectly safe for the most handicapped patient and the anesthesia lasts from three to four hours.

When cocaine is used for infiltrating the skin, fat, fascia, muscles and peritoneum the tissues heal more promptly than after the use of quinine and urea hydrochloride.

For the prevention of postoperative pain in the wound for the first few days following operation, quinine and urea act admirably if injected with a long needle into the tissues, at a distance (one to two inches) from the margin of the wound while the incision is being closed. Postoperative

anesthesia persists longer when the quinine and urea is used in this manner, for it is well known that a local anesthetic lasts longer in tissues that are not cut.

As each layer of the wound is sutured the quinine urea solution is injected, so as to block the nerves of this layer of tissues and yet not interfere with the healing of the wound.

After pain in the wound is undoubtedly largely dependent upon the degree of traumatism inflicted on the tissues with an abundant nerve supply.

Reclus and Goyanes were among the first to note the comparative freedom from after pain enjoyed by patients who had been operated upon with local anesthesia.

The quinine urea nerve block prevents postoperative nerve stimulation to the brain, therefore there is no after pain in the wound.

It is nearly always advisable to give a preliminary dose of morphine or morphine and hyosine at least twenty minutes before the operation.

I believe it is best to begin the operation under local anesthesia and reserve the general anesthetic, even though it is nitrous oxid, until it is required for the discomfort of intra-abdominal manipulation.

When nitrous oxid is not available, and there is no contraindication, I prefer a few drops of chloroform when the intra-abdominal manipulation requires a general anesthetic. With this method it is seldom that the patient need be completely under the anesthetic.

Crile states that there is much more relaxation and closure is easier even in the upper abdomen, than with the old methods.

Nausea and vomiting are absent, except when it is necessary to give ether, and then slight, if any, because of the small amount required.

With this combined method the amount of general anesthetic is reduced to the minimum and the nerve block is more thorough than when the local anesthetic is hastily injected after the patient is under general anesthesia and time is precious, for the operator is naturally anxious to finish with the general narcosis as quickly as possible.

I have employed this method in a hysterectomy for a fibroid uterus weighing ten pounds. The pulse was 84 before operation and dropped to 72 before the patient left the operating table.

In a patient with a very large ovarian cyst the pulse was 80 throughout the operation and when placed in bed after operation remarked that she felt like taking a nap she was so comfortable. This patient did not receive a preliminary dose of morphine or hyosine.

In cocain appendectomies the pulse is rarely more rapid after than before operation.

This method requires more time as there is less general anesthesia than with the method of Crile and Bloodgood, it is impractical for large clinics though for the majority of surgeons it has many advantages.

To appreciate the merits and gain the greatest proficiency in the technic of the combined method of anesthesia it must be used in every case, no matter how trivial the operation.

In conclusion, with a sufficient dose of morphine or morphine and hyosine to exclude worry, fear and nervousness there will be no psychic shock. With a local anesthesia nerve block sufficient to completely isolate the brain from the field of operation, there can be no exhaustion or shock of the subjective mind.

## EDITORIAL

### THE REDUCTION OF OUR MEDICAL SCHOOLS.

The recent report to the Carnegie Foundation on Medical Education in Europe opens up a line of thought on the subject of medical education in the United States that has no doubt occurred to many men heretofore and is a matter that should supply thought to all who contemplate the formation of the small medical school.

From eight to fifteen years ago the number of medical schools in the United States was at its highest point and since that time there has been a gradual reduction in the number due to consolidation, amalgamation and discontinuances, to the extent that where formerly existed five or six schools there are now one or two.

This condition is a matter of congratulation to the medical profession and for many reasons.

Formerly the rivalry for students between the different schools no doubt produced the low grade of requirements for entrance and graduation and some of the schools were notorious in graduating incompetents.

Then the question of equipment was almost a negligible matter with them; some had mere makeshifts in the way of laboratory equipment and while the teaching in the way of general medicine, surgery and gynecology and obstetrics was often superior or good all the other issues going into the making of a finished physician were often neglected. This was due to the poor finances or poverty of the school largely and their inability to secure the technical teachers necessary.

The consolidation of schools has resulted in great improvement in that they are now, some of them, extremely rich and have large endowments which places them in a position of independence and they do not have to lower their standards to attract the cheap student who only enters medical school with graduation as the end in view and the making of money as the final accomplishment of his profession.

This consolidation is already causing the statement from men who know that study in Europe is not necessary to make a finished physician and that our schools with proper support, placed on an independent basis with merit as the only requirement for faculty positions will eventually reduce the trip to Europe to a sightseeing one and that the object in the visit will be largely one for comparison of methods and work.

The education of a physician is probably the costliest per man of any of the professions and these consolidations are making his education easier for the school and also giving him a great deal more for the money and time invested than was formerly given him by the institution of lower grade.

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### HOT SPRINGS IN OCTOBER.

The above refers to the next Annual Meeting of the Medical Association of the Southwest which will be held October 8-10. The headquarters will be at the Arlington Hotel. The Committee of Arrangements hope to secure the first floor of the Eastman Hotel for the meeting of the different sections.



This is particularly desirable because the main lobby gives abundance of room for the general sessions while the different parlors on the same floor afford plenty of room for each of the sections to hold their separate

Many strong men have already promised contributions to the program which bids fair to be the best yet held. Each year these meetings have increased in strength of program and attendance and the officers expect that this will be no exception to the rule. The well known hospitality of the fraternity of Hot Springs is all that is needed to assure a thoroughly enjoyable social time.

If you wish to present a paper write the Secretary at El Reno, Okla., at once giving the title of the same.

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To the Oklahoma members of the Medical Association of the Southwest, and others who will attend the next Annual Association Meeting at Hot Springs, Ark., Oct. 8-10, 1912:

Arrangements will be made if a sufficient number signify their intention of attending this meeting to have a special train which will leave El Reno, via C. R. I. & P. R. R. on the evening of October 7th and arriving at Hot Springs early on the morning of the 8th. The train will be composed only of Pullman and a Cafe car which will assure comfort and convenience to every one going that way.

If you are planning to attend don't fail to write the Secretary, F. H. Clark, at El Reno at the earliest moment that your name may be entered on the list and a reservation made.

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### GEORGE WASHINGTON CORNELL.

The subject of this perpetration on the name of the Father of our Country has been saving his country for some time past as a member of the Oklahoma legislature from Custer County and now has received a call that leads him to believe he should ornament the Hall of Congress and do some more saving at a higher salary than heretofore enjoyed.

Having some acquaintance with the class of brain work evolved by this champion of the people's liberties, the Council of our State Medical Association recently met in Oklahoma City and took appropriate action on his case and below is the result of their deliberations on the matter.

The physicians of the Second Congressional District should take enough interest in this nomination to send a man who is evenly balanced enough not to try to make a winter out of one little frost or to upset the conclusions of scientific medical education in one session of the Oklahoma legislature.

To the Physicians of the Second Oklahoma Congressional District:

Hon. G. W. Cornell, formerly a member of the Oklahoma legislature, being a candidate for the nomination for Congress from the Second Congressional District, we, the President, Secretary and Council of the Oklahoma State Medical Association meeting in Oklahoma City July 17, 1912, desire to call the attention of the medical profession, especially of the Second Congressional District and of the State at large in general, to the following facts concerning his record in the last legislature.

First. That in opposing an amendment to the Medical Practice Act defining the practice of medicine in a speech addressing the legislature, the said Hon. G. W. Cornell went on record then in opposition to said amendment, which amendment would have required every one treating the sick, excepting Christian Scientist, on account of their religion, and the application of domestic remedies and emergencies in general, to have passed the



same examination in the fundamentals of Anatomy, Physiology, etc., which applies and should apply, to all sects alike, and which definition is now recognized as fundamental in all the states having modern medical requirements in keeping with the advancement along these lines.

Second. That this amendment opposed by the Hon. G. W. Cornell had already passed the Senate by an overwhelming majority.

Third. That in conversation with the Secretary of the Oklahoma State Medical Association, before reliable witnesses, the said Hon. G. W. Cornell stated that anatomy as taught by the Chiropractors, for instance, differed from that taught by other schools of practice, a statement manifestly absurd on its face.

Fourth. In view of the above stated facts, we wish to call your attention to the danger to the public at large of advancing a man politically holding such dangerous, unscientific and crude views and thus enlarging the field of his activities.

We believe that the State Association and the public for which the former stands, have the right to expect every physician to interest himself to the extent of opposing by all fair means, the nomination of any man holding such views and whose action consistently therewith would be detrimental to the public health.

We believe a fair statement of these facts by yourself to your clientele will be sufficient to prevent all such nominations.

JAMES L. SHULER, M. D.,  
President.

C. A. THOMPSON, M. D.,  
Secretary.

R. V. SMITH, M. D.,  
L. T. STROTHER, M. D.,  
CHAS. R. HUME, M. D.,  
A. L. BLESCH, M. D.,  
P. P. NESBITT, M. D.,  
H. P. WILSON, M. D.,  
Councillors.

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### THE PROCTOLOGIST.

The Proctologist for September, under the editorship of Dr. Rollin H. Barnes of St. Louis, will contain the papers and discussions of the American Proctologis Society for 1912.

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### DRS. PETTEY & WALLACE'S SANITARIUM. CHANGE OF ADDRESS.

In systematizing street names, the name of the street on which Drs. Pettey & Wallace's Sanitarium is located, has been changed from South Fourth to South Fifth street. Please bear in mind that this change of address does not involve a change of location of the Institution. Their new address is 958 South Fifth St., Memphis, Tenn.

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### INCOMPLETE ABDOMINAL SURGERY.

H. G. Wetherill, Denver (Journal A. M. A., June 22), makes a plea for larger incisions and more thorough examinations in abdominal surgery. Special and regional surgery in limited fields has, he says, been responsible for such results in most instances, the operation being based on a more or less specific diagnosis, correct as far as it goes, but which ignores possible obscure complications. In operations for appendicitis through a small "grid-iron incision, serious pelvic lesions, gall-stones, gastric and intestinal lesions,

etc., have been often overlooked and the patient is hardly better after the operation although the diagnosed lesion has been removed. Every one who proposes to undertake abdominal operations of any kind should feel it his duty to be prepared to meet any conditions which may be found in the abdomen and should not close it up, except in an emergency, until he has ruled out any possible coincident or correspondent pathologic condition. Certain noted exceptions to this rule may be admitted, as in operations for intestinal perforation, appendicitis or salpingitis, in which incision would be diffused, or in ectopic pregnancy with rupture, or cesarean section. In such cases a definite diagnosis is usually possible and the emergency such that the particular trouble diagnosed is alone to be considered. He quotes from a similar plea by Dr. Moore (Journal A. M. A., Sept. 16, 1911), and goes on to point out how important it is to remember the frequency of gall-bladder disease in women when performing gynecologic operations, and that certain physiologic pelvic conditions may give rise to profound stomach disorders. Tuberculosis, cancer, enteroptosis, stomach or intestinal perforations, volvulus and intussusception or other forms of intestinal obstruction, rupture of the uterus, bladder or vagina, diverticula, gall-stones, pancreatitis, etc., may accompany any other condition and complicate any abdominal operation one undertakes. Exact and complete pre-operative diagnosis in certain areas of the abdominal cavity can never be made with exactness and this is particularly so in the upper right quadrant where the gall-bladder, duets and liver are closely grouped and may be all matted together. He reports cases illustrating such possibilities, and says that regional abdominal surgery in limited fields has had its day.

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### ATROPIN IN DIABETES.

H. O. Mosenthal, New York (Journal A. M. A., March 16), reports two cases of diabetes in which he tested the atropin treatment advised by Rudisch and by Foreheimer. He gives tables of the diet and of the urine analysis and medication. The atropin sulphate was used in doses of from 1-100 to 1-25 of a grain daily, carrying it until toxic effects were observed. The glucose was determined by Benedict's method, the ammonia by that of Folin and the nitrogen by the Kjeldahl process. The presence or absence of acetone was established by the Legal reaction; of diacetic acid, by the ferric chlorin test. The results as shown by his tables give no indication that atropin sulphate causes any change in the carbohydrate tolerance of sufficient importance to make it of clinical value in the treatment of diabetes.

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## NEW BOOKS

### DIFFERENTIAL DIAGNOSIS.

(Second Edition Revised.)

Differential Diagnosis. Presented through an analysis of 385 cases. By Richard C. Cabot, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second Edition. Octavo of 764 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1912. Cloth, \$5.50 net.

This is one of the remarkably good books recently issued and the second edition will be received with the same unanimous popularity as was the first. The work is written in a peculiarly attractive manner and contains none of the repetition and dryness of the text book, but is virtually a

bedside history with deductions and conclusions from the authors cases and work.

It consists of twenty-three chapters dealing with the most prominently met with symptoms complained of by a patient and the case is stated first from the standpoint of the things complained of by the patient, then a statement of the writers as to the probable cause of such symptoms, his steps to determine the cause of the trouble and the result of such investigation or of operation. The reasoning powers of the author are admirable and the ingenuity of thought and expression is clearly shown in this book.

It will be read with great pleasure by the student and will be found of very great service to the busy general practitioner whose work is so varied that every help given him in the way of diagnostic insight is received with thankfulness and appreciation.

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### **INTERNATIONAL CLINICS, VOLUME TWO, TWENTY-SECOND SERIES**

Price \$2.00 Cloth, 316 pages, Illustrated, 1912. J. B. Lippincott Company, Philadelphia and London.

This is of more than the usual interest on account of containing a symposium on anesthesia and anesthetics held before the Philadelphia Medical Society April, 1912, which covers very thoroughly the various devices and systems of anesthesia with a discussion of the merits of each, their indications and contraindications. The subjects were rendered as follows:

General Remarks on Anesthetics, Edward Martin, M. D.; Ether Anesthesia, Wilmer Krusen, M. D.; Chloroform Anesthesia, Edward W. Beach; Nitrous Oxide Anesthesia, George M. Laws, M. D.; The Use of Ethyl Chloride as a General Anesthetic, W. Estell Lee; Intratracheal Insufflation Anaesthesia, George P. Muller; Intraspinial Anaesthesia, William A. Steel; Infiltration Anaesthesia, Charles F. Nassau; Exhibition and Explanation of the Roth-Drager apparatus for Chloroform, Ether and Oxygen, P. Brooke Bland, Demonstration of the Original Apparatus Used by John Foster Bewster Flagg for the Administration of Ether, Edward C. Kirk; Postanaesthetic Poisoning, Edward M. Corner; The Case Against the Nurse Anaesthetist, Lawrence Irwell.

The book also contains the usual number of other good things notably an article dealing with puerperal sepsis by William Edgar Darnall of Atlantic City which deserves more than passing notice.

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### **THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING.**

MEDICAL EDUCATION IN EUROPE, Bulletin Number Six.

A report to the Carnegie Foundation for the Advancement of Teaching by Abraham Flexner, with an introduction by Henry S. Pritchett, President of the Foundation, 576 Fifth Avenue, New York City, 1912.

This report, which is most enhaustive and goes into every detail obtainable of medical education in Europe besides the introduction which sets forth the work heretofore done and that included in the present volume, consists of fifteen chapters which consider the following phases of medical education in England and on the Continent: Historical, Number and Distribution of Physicians, Basis of Medical Education, The Preliminary Sciences, Physics, Chemistry and Biology, The Medical Scences in Germany, Great Britain and France, Clinical Instruction in Germany, Great Britain and France, Currieulum and Examinations in Germany, Great Britain and

France; The Financial Aspects of Medical Education; Postgraduate Education and Medical Education of Women.

Those who remember the reception of the former, report to the Foundation on medical education in the United States will recall that the Foundation there was a general house cleaning in medical colleges as a result of that report; that there were consolidations here and abandonments there of so-called medical schools and that the report while subject to many onslaughts and bitter attacks was generally accepted as a correct statement of the condition of our medical institutions. This report is identical in character with the former, with the exception that this is more thorough in detail on account of the data being more accessible with reference to the schools of Europe than in our American Schools.

To every man interested in medical education this report will be read with more than passing interest and it will unquestionably be of benefit to us in pointing out the weaknesses and strength of our foreign friends in medical educational matters.

### OKLAHOMA HOSPITAL FOR THE INSANE.

**Annual Report for the Year Ending September 30, 1911, Norman, Oklahoma.**

This report considers the location of the Norman Institution, Equipment, Improvements, Hospital Staff, Care and Treatment of Patients, Outdoor Occupations, Entertainment of Patients, The Dietary, Clothing, Women Nurses and Attendants, Training School for Nurses and Attendants, Records of Patients.

Synopsis of the Year's Work, Etiology and a general description of the various type of mental disease treated at the Hospital.

This report shows that there were remaining in the hospital on October first 893 patients, 749 whites of which there were 406 males and 343 females and 144 negroes of which 63 were males and 81 females.

There were treated in the institution during the year 1431 patients; 247 were discharged, 119 died, 135 paroled and 37 escaped.

### PRACTICAL MEDICINE SERIES, EYE, EAR, NOSE AND THROAT.

**THE EYE**—Edited by Casey A. Wood, C. M., M. D., D. C. L. Consulting Ophthalmologist to Cook County Hospital; Attending Ophthalmic Surgeon, St. Luke's Hospital, Chicago.

**THE EAR**—Edited by Albert H. Andrews, M. D., Professor of Otology, Rhinology and Laryngology, Chicago, Eye, Ear, Nose and Throat College; Oculist and Aurist to the Chicago, Rock Island and Pacific Railway, etc.

**THE NOSE AND THROAT**—Edited by Gustavus P. Head, M. D., Professor of Otology, Laryngology and Rhinology, Chicago Post-Graduate Medical School.

Cloth, 358 pages, Illustrated, Price \$1.25.

Chicago, The Year Book Publishers, 180 North Dearborn St., Series 1912.

### PRACTICAL ELECTRO-THERAPEUTICS AND X-RAY THERAPY.

With chapters on Phototherapy, X-Ray in Eye Surgery, X-Ray in Dentistry, and Medicolegal Aspect of the X-Ray.

By **J. M. Martin, M. D.**

Professor Electro-Therapeutics and X-Ray Methods in the Medical Department of Baylor University, in the Medical Department of Southwestern University, and in the State Dental College, Dallas, Tex.; Member of the



Texas State Medical Association, American Medical Association, American Roentgen X-Ray Society, etc.

Containing 219 illustrations. Cloth, Price \$4.00.

St. Louis.

C. V. Mosby Company, 1912.

This book will be an excellent reference and guide to the general practitioner interested in this work, and is especially adapted to the student who is taking up the work along these lines.

The author has carefully avoided technicalities, theories and minute details as much as possible, which adds much to the value of the book in the purpose for which it is intended.

The first chapter treats briefly but concisely of the electrical units and laws governing the measurements of currents which is very essential to the student and convenient for the practitioner.

The next few chapters treat in an excellent manner of the elementary physics and mechanics of practical electrical apparatus and will be of much assistance in installing and keeping apparatus in condition. The chapters on static and high frequency currents are well taken as the therapeutic value of these currents is much under estimated by the general profession.

M. M. ROLAND.

### **SEXUAL IMPOTENCE**

**New (4th) Edition Enlarged**

Sexual Impotence. By Victor G. Vecki, M. D., Consulting Genito-Urinary Surgeon to the Mount Zion Hospital, San Francisco. Fourth edition, enlarged. 12mo of 394 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$2.25 net.

### **SURGICAL CLINICS OF JOHN B. MURPHY, M. D.**

**Volume I, Number III.**

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume I, Number III. Octavo of 174 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

### **COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL**

**(Mayo Clinic) 1911**

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1911. Octavo of 603 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5.50 net.

### **INFANT FEEDING.**

Infant Feeding. By Clifford G. Grulee, A. M., M. D., Assistant Professor of Pediatrics at Rush Medical College, Attending Pediatrician to Cook County Hospital. Octavo of 295 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.00 net.

W. B. SAUNDERS COMPANY

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London


### **ANNOUNCEMENT.**

Dr. H. H. Wynne, Specialist of the Eye, Ear, Nose and Throat, of 107 West Park Place, Oklahoma City, announces that he is prepared to go to the office of any physician in any part of the state to do the operation for enucleation of the tonsils and removal of adenoids. These cases specially solicited. Phone Walnut 7824, Long Distance, Dr. H. H. Wynne.

8-12

# THE JOURNAL

*of the*



## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, SEPTEMBER, 1912

No. 4

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

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### REPORT OF ONE HUNDRED CONSECUTIVE LAPAROTOMIES WITH ONE DEATH

T. M. ADERHOLD, M. S., M. D., EL RENO, OKLA.

This series of cases was operated on by Dr. John A. Hatchett and myself in the El Reno Sanitarium between January 1, 1910, and August 20, 1911. In presenting them I feel it is proper to give a brief statement of the methods employed in their treatment.

(a) Personnel of the Operating Room:—Under the system used by us in these cases there are four persons in the operating room who do not change, the operator, the first assistant, the anaesthetist, and the surgical nurse. The only two persons who do change are the two nurses in training. One of these assists the anaesthetist and one the surgical nurse. At times a second assistant could be used at the operating table to an advantage and could be changed from time to time without detracting from the proficiency of the staff. We regard this system of permanency in the line up as far superior to the other methods used by some operators by which they change anaesthetists, assistants and nurses at almost every operation.

(b) Preparation and Handling of Patients:—A history of the patient is written which includes the family history, personal history, present illness and present condition. Many times the present illness of the patient and the present condition are the only parts of it that concern an operation. Nevertheless if the other is not considered an error or some factor contra-indicating an operation will be overlooked. We have come to the conclusion that as far as the patient's life is concerned the contra-indications to the operation are of more importance than the indications for operation. In the history it has been our aim to ask questions bearing on pulmonary tuberculosis in the patient himself and swelling of the limbs due to nephritis or heart disease. If a patient gives a history of rheumatism beware of heart lesion due to an endocarditis. A simple murmur is not a contra-indication to an anaesthetic.

As far as possible all patients have been examined on the day preceding the operation. If they have been in the hospital several days the points of their history which bear on the advisability of an operation are again gone over and another physical examination made.

The following points have been considered by us as contra-indicating operation.

(1) A temperature of 100 or more unless it be due to pus which can be drained by the operation and conditions left so that it will not reaccumulate.

(2) A pulse of 120 or more unless it be due to pus which can be drained by the operation and conditions left so that it will not reaccumulate.

(3) Jaundice in any form. Such patients may bleed several days after the operation when the calcium chloride which was given them has been eliminated from their system.

(4) A temperature of 96 or below.

(5) Hoemoglobin of 50 per cent or below

(6) Shock from any cause.

(7) Patients over 70 years old unless all of their organs are perfectly sound and the operation a short one.

(8) Sugar or albumen in the urine. If the sugar is due to a diseased pancreas, drainage of the gall bladder may be done. Some cases of albumen in the urine can undergo treatment and be operated. The treatment should be continued after the operation.

(9) A general weakened condition from any cause. The only case in this series that died was too weak to walk a few blocks to her place of business for some time before the operation.

The patient is prepared for the operation by giving 2 ounces of castor oil at 2 p. m. on the day preceding the operation. A soapsuds flushing is given at 8 and 10 p. m. the same night. The field of

operation is shaved early on the morning of the operation and the patient walks to the operating room when able. The field of operation is there prepared and the patient anaesthetized. The preparation of the field of operation is as follows:

The surgical nurse, after cleaning her hands, washes the field of operation with soap and gauze for 10 minutes. The soap and water is then dried off and the field gone two times over with ether. It is again washed with soap and water about 3 minutes. It is then dried and smeared with tincture of iodine and this removed with alcohol. The total time of preparation is 15 minutes.

Each patient receives a hypo of morphine  $\frac{1}{4}$  grain one-half hour before the anaesthetic is to be given. The anaesthetic is always ether given by the drop method on an open mask. The operator, the assistant and the surgical nurse all wear rubber gloves which are boiled 5 minutes and are put on wet out of lysol solution.

Drainage:—It has been our rule to drain in all cases of appendicitis where there was any question of the peritoneal cavity being able to take care of the infection. This in part will account for the large number of dressings which some of the cases have had. It is far better to do this than to suffer the humiliation of opening an abdomen and draining an abscess later or losing a patient. We have never yet had to open an abdomen the second time for drainage. The drainage used has been a rubber tube with holes cut in it wrapped with several layers of gauze with two or three layers of gutta serena tissue around the outside, the whole drain being about 1 inch in diameter. The gutta serena tissue does not adhere to the intestines or sides of the wound as does the unprotected gauze. It is therefore much less painful to the patient when it is removed. One two and even three such drains are used. When more than one is inserted they are removed one at a time, on successive days or at longer intervals. As soon as we are satisfied that the drains are in a walled cavity we often pour into it a solution of 4 tenths per cent sodium chloride and 2 tenths per cent sodium citrate. It has been determined by experiments that such a solution does not coagulate blood as many other solutions used in cavities do. By its not coagulating the blood more leucocytes are drawn into the wound and the infection therefore made shorter in its duration. This solution does its best work where the discharge is bloody. If such is not the case a saturated solution of boric acid is used.

The drainage tubes described above are used in pyosalpinx cases and all other cases of abscess in the abdominal cavity except gall bladders. Gall bladders, whether they contain pus or not, are packed with sterile gauze in a single piece. This is an 8-inch sponge unfolded. This is removed on the third day and if the gall bladder contains infected material or its lining was thickened a plain rubber tube is inserted and kept there one or two weeks. If the contents



of the gall bladder was not considered infected nothing is put into it after the gauze is withdrawn. It being considered that anything that would injure the lining of a gall bladder would tend to leave a condition favorable to reformation of gall stones. The gall bladder is always sewed to the peritoneum or abdominal wall.

(c) After Treatment:—Patients leaving the operating table are divided into two classes: Those considered serious are placed in the Fowler position by elevating the head of the bed and are given normal salt solution continuously per rectum. Those considered not serious are given normal salt solution per rectum at the rate of 4 ounces every 4 hours, and may or may not be placed in the Fowler position. There is a standing order for each patient to have  $\frac{1}{4}$  grain

**17 CASES OF APPENDICITIS WITH ABSCESS. (†APPEND. REM'D BEFORE HE LEFT HOSP. ‡APPEND. REM'D ON ACC'T OF SYMPTOMS DEVELOPED LATER.) (1)**

CASE	AGE	DAYS OF ILL.	INCISION	DAYS IN HOSP.	DRESS.
NO. 1	11		RT. RECTUS	34	20
.. 2	19	11	.. ..	64	51
.. 3	13		.. ..	34	26
.. 4	19		.. ..	37	12
.. ‡ 5	26		.. ..	17	15
.. ‡ 6	22	8	.. ..	27	24
.. 7	24		.. ..	25	21
.. ‡ 8	9		.. ..	17	13
.. 9	12		.. ..	29	28
.. 10	15		.. ..	17	14
.. 11	14	11	.. ..	18	21
.. 12	18	14	MEDIAN LINE BELOW	36	31
.. 13	30	10	RT. RECTUS	27	22
.. 14	14	9	.. ..	11	11
.. * 15	23	3	MC BURNEY	44	40
.. 16	20	27	RT. RECTUS	20	18
.. 17	19	10	MEDIAN LINE BELOW	11	32
AVERAGE				17 468	399
				27+	23+

Seventeen cases of appendicitis with abscess that was drained.

†Appendix removed on account of symptoms that developed later.

\*Appendix removed before patient left the hospital.

morphine (hypo) if they have pain. If they have more it is by special order. The patient's condition is always the guide in returning to a full diet. Those who do best are given it by the end of the first week. Stitches are removed from the eighth to the twelfth day. Patients are permitted to get up as soon after the seventh day as their condition will permit. Their time of leaving the hospital is governed by their condition and the surroundings in their home and the care which they can receive from their regular physician. The following tables will show the exact time this 100 cases left the hospital.

The clean cases are dressed two or three times. After the stitches are removed adhesive plaster is applied to the abdomen in such a way as to give support to the wall. This is left in place one or two weeks and is usually removed by the patients after their return home. The drainage cases are also strapped in the same manner when they leave the hospital. All cases that are infected or that have drainage left in them are dressed every day. Some of the gall bladder cases that have free drainage are dressed two or three times per day. This accounts for the large number of dressings shown in the tables

(d) The greatest number of any class of cases (table 1) was seventeen cases of appendicitis with abscess that was drained. Three of these had their appendix removed after leaving the hospital on account of symptoms returning. One case had his appendix removed before leaving the hospital in order to be certain that no future trouble would arise. In 14 out of the 17 cases we preferred the incision through the right rectus muscle. In no case has a hernia developed. The longest time in the hospital for a single case was 64 days. There were two who left in 11 days. The average residence in the hospital was 27 days. In comparing this series of cases with the six cases of pyosalpinx it will be seen that the pyosalpinx cases averaged two days less in the hospital than the pus appendicitis cases.

### PYOSALPINX CASES IN WHICH THE ABSCESS WAS DRAINED <sup>(2)</sup>

CASE	AGE	TUBE INVOLVED <sup>and</sup> OTHER OPERATIONS	DAYS IN HOSP.	DRESS
NO. 1	28	LT. RECTUS INCISION, LT. TUBE	30	24
" 2	31	LT. TUBE, MEDIAN INCISION — APPENDIX REMOVED. UTERUS SWABBED WITH 95% CARBOLIC	15	8
" 3	37	BOTH TUBES, MEDIAN INCISION	45	36
" 4	36	RT. " " "	14	12
" 5	30	LT. " " "	24	24
" 6	21	" " " "	22	21
AVERAGE			6	150
			25	125
				21—

Pyosalpinx cases in which the abscess was drained.

Table III shows 14 cases of appendicitis with diseased female genitalia. The average stay in the hospital was 20 days. Some of these cases were kept longer than male patients would have been on account of their general run down condition. Table IV shows 20

cases of various conditions some for simple and some for multiple operations. All were clean cases. The average time in the hospital was 21 days. Table V shows six cases with three or more operations

#### 14 CASES OF CHRONIC APPEND. WITH OPERATIONS ON FEMALE GENITALIA DONE AT THE SAME TIME <sup>(3)</sup>

CASE	AGE	APPENDICITIS WITH DISEASED FEMALE GENITALIA	DAYS IN HOSP.	DRESS
NO. 1	29	APPEND. REMOVED & RT. OVARY & TUBE	32	32
" 2	30	" " PEPI'HY. UTERUS	12	5
" 3	36	ANCHORED BY ROUND LIG. TO ABD. WALL		
" 4	31	APPEND. REMOVED & UTERUS REMOVED	14	5
" 5	34	" " UTERUS ANCH & CURETT.	17	5
" 6	39	APPEND. REMOVED, CERVIX AMPUTATED AND	13	6
" 7	29	ROUND LIG. SHOTENED & CURETTMENT	17	6
" 8	22	APPEND. REMOVED, UTERUS REMOVED	14	7
" 9	25	" " CIRVIX, CURETTMENT	33	19
" 10	17	PERINEORRHAPHY		
" 11	36	APPEND. REM'D, UTER. ANCH. BY ROUND LIG.	18	9
" 12	32	" " RT. OVARY & TUBE REMOVED	18	7
" 13	31	UTERUS ANCH BY ROUND LIG.		
" 14	22	APPEND. REM'D, RT. OVARY REM'D	15	14
" 15	36	" " UTER. & LT. OVARY & TUBE REM'D	18	7
" 16	32	" " ANCH BY ROUND LIG.	12	3
" 17	31	" " CERVIX AMPUTATED UTERUS		
" 18	22	CURETTED & ANCH'D BY ROUND LIG.	32	16
" 19	22	APPEND. REM'D, UTER. ANCH. BY ROUND LIG.	14	2
AVERAGE			279	143
* DETAINED IN HOSP. FOR AMP. OF BREAST			20-	10+

\*Detained in hospital for amputation of breast.

Fourteen cases of chronic appendicitis with operations on female genitalia done at the same time.

#### CASES NOT ENUMERATED IN OTHER TABLES. (4)

CASE	AGE	OPERATION	DAYS IN HOSP.	DRESS.
NO. 1	27	APPENDECTOMY, OUTSIDE HOSP.		
" 2	19	APPEND. ABSCESS		
" 3	29	LARGE CYSTO ADENOMA, LT. SIDE	38	32
" 4	39	UTERUS SUSPENDED & CURETTM'T	17	2
" 5	31	CYST OF RIGHT OVARY	18	10
" 6	44	CARCINOMA OF BLADDER	27	18
" 7	61	CYSTS OF BOTH OVARIES	18	7
" 8	48	VENTOL HERNIA 12 IN. IN DIA.	25	5
" 9	40	CARCINOMA OF STOMACH	11	1
" 10	32	APPEND. REMOVED	20	7
" 11	29	EXPLORATORY FOR DIAGNOSIS	12	5
" 12	"	TUMOR LT. TUBE	14	12
" 13	26	EXTRA URINE PREGNANCY	27	24
" 14	38	" " "	34	25
" 15	25	" " "	32	54
" 16	53	UTERUS ANCH. FOR CYSTOCELE		
" 17	"	PERINEUM REPAIRED	27	19
" 18	25	APPENDIX WITH DOUBLE HERNIA	23	12
" 19	43	TUBECULAR PERITONITIS	11	15
" 20	39	" " "	17	11
" 21	"	GALL BLADDER DRAINED		
" 22	"	CIRVIX AMPUTATED & CURETTM'T	18	13
AVERAGE			389	272
			21+	15+

Cases not enumerated in the other tables.

two of which were gall bladder and appendix. Their average time in the hospital was 25 days. Table VI represents twelve cases of

**CASES WITH 3 OR MORE OPERATIONS. GALL BLADDER & (5)  
APPEND. WITH SOMETHING ELSE**

CASE	AGE	THREE OR MORE OPERATIONS —	DAYS IN HOSP.	DRESS
NO. 1	41	GALL BLADDER DRAINED, APPEND. REM'D	34	25
"		UTERUS ANCH. BY ROUND LIG.		
" 2	38	GALL BLADDER DRAINED, APPEND. REM'D		
"		UTERUS, CURETT. ANCH. BY ROUND LIG.	16	17
" 3	45	GALL BLADDER DRAINED, APPEND. REM'D		
"		RT. OVARY CYSTIC — REMOVED.	18	17
" 4	35	GALL BLADDER DRAINED, APPEND. REM'D		
"		VARICOCELE & HYDROCELE	17	25
" 5	32	GALL BLADDER DRAINED, APPEND. REM'D		
"		BOTH OVARIES & TUBES REMOVED		
"		UTERUS ANCH. & HEMORRHOIDS	26	16
" 6	45	GALL BLADDER DRAINED, RT. KIDNEY		
"		ANCH. UTERUS ANCH. BY ROUND LIG.	42	35
AVERAGE			6	153
			25+	135
				25+
				22+

Cases with three or more operations.

Gall bladder and appendix with something else.

(6)

**TWELVE OF SIMPLE DRAINAGE OF GALL BLADDER OR  
REMOVAL OF APPENDIX. NOT GIVEN IN OTHER CASES.**

CASE	AGE	INCISION AND WHAT WAS DONE	DAYS IN HOSP.	DRESS
NO. 1	36	RT. RUPTUS-GALL BLADDER DR'N'D	19	14
" 2	52	" " " " "	24	12
" 3	59	" " " " "	22	34
" 4	44	" " " " "	12	10
" 5	36	" " " " "	15	14
" 6	15	MEDIAN LINE APPENDIX REMOVED	12	4
" 7	27	RT. RECTUS " "	10	17
" 8	19	MEDIAN LINE " "	15	9
" 9	29	" " " " "	11	5
" 10	10	" " " " "	16	14
" 11	24	RT. RECTUS " "	18	7
" 12	18	MC BURNEY " "	13	5
AVERAGE			12	187
			15+	145
				15+
				12+

Twelve cases of simple drainage of gall bladder or removal of appendix. (Not given with other cases.)



drainage of the gall bladder or appendicitis. All were clean cases, The average time in the hospital was 15 days. Table VII shows the ten cases that left the hospital in less than 10 days. By comparing tables IV and V with VI and VII it will be seen that multiplicity of operations prolongs the patient's stay in the hospital.

### CASES THAT LEFT HOSP. IN LESS THAN 10 DAYS

CASE		AGE	OPERATION	DAYS IN HOSP.	DRESS. (7)
NO.	1	19	APPENDICITIS 36 HRS.	7	1
"	2	19	" 24 "	9	3
"	3	30	GALL BLADDER DRAINED	8	6
"	4	48	APPENDIX REMOVED UT. ANCHORED	8	4
"	5	67	EXPLORATORY LAPAROTOMY	8	1
"	6	15	APPENDICITIS	9	2
"	7	16	"	7	2
"	8	31	GALL BLADDER DRAINED	8	6
"	9	38	APPENDICITIS CHRONIC	6	1
"	10	27	" "	8	2

Cases that left the hospital in less than 10 days.

TABLE VIII.

CASE	AGE	GALL BLADDER AND APPENDIX	DAYS IN HOSP.	DRESS.
No. 1	33	GALL BLADDER AND APPENDIX	18	12
" 2	39	" " " "	17	14
" 3	18	" " " "	14	14
" 4	47	" " " "	17	17
" 5	21	" " " "	15	16
" 6	28	" " " "	11	23
" 7	32	" " " "	12	9
" 8	38	" " " "	13	25
" 9	45	AND RT. OVARY GALL BLADDER AND APPENDIX UT. SUSP.	18	17
" 10	38	GALL BLADDER AND APPENDIX	16	14
10			151	161
AVERAGE			15 x	16 x

Ten cases removal of appendix and drainage of gall bladder.

Table IX shows seven cases of hysterectomy and the conditions for which they were done. These were all abdominal operations. The average time in the hospital was 22 days. Two of them had other work done at the same time. The only case of these 100 to die is found in this group. She had a carcinoma of the cervix uteri which had been diagnosed as such by a pathologist. She died on the tenth day after operation with symptoms of intestinal obstruction due to adynamic illius. At the time of operation nothing was seen in the abdomen to make one suspect a metastasis. Her uterus was not large and would have been removed per vaginum had she not requested the abdominal operation.

### 7 CASES OF HYSTERECTOMY — 1 DEATH

(9)

CASE	AGE	CONDITION FOR WHICH HYSTERECTOMY WAS DONE	DAYS IN HOSP.	DRESS
NO. 1	45	FIBROID TUMOR	24	8
" 2	40	" "	"	"
*3	36	" "	46	9
†4	43	SUSPECTED CARCINOMA	24	23
" 5	46	CARCINOMA (MICRO. DIAG.) DIED 10 DAYS AFTER OPR.	12	6
†6	36	PROLAPSE	14	5
" 17	39	FIBROID TUMOR	"	7
AVERAGE			7	158
			22+	66
				9+

\* GALL BLADDER ALSO DRAINED. † ENUMERATED IN ANOTHER CLASS OF CLASSES. ‡ APPEND. ALSO REM'D.

\*Gall bladder also drained.

†Enumerated in another class of cases.

‡Appendix also removed.

Seven cases of hysterectomy. One death.

Conclusions:—(1) We consider that a carefully written history and a thorough examination of the patient combined with a careful study of the various pathological conditions and the patients present strength to be of the most importance in this work.

(2) We consider the personnel of the operating room to be next in importance. The two most important personages of this group are the operator and the anaesthetist. These under all circumstances should have had experience before beginning their work. The more skilled the assistant and the permanent surgical nurse become, the better it is for all parties concerned. When all four of these are sober, observing, not talkative and learn their respective duties the

operating staff becomes nearly ideal. The operator above all else should know what to do and what not to do and when he has done enough. His judgment is the greatest single factor in the problem of mortality.

(3) Next of importance is the place in which the operations are done. Men who do much surgery and do it well soon come to prefer to do it at one hospital where they know that everything is ready for whatever emergency may arise and where they are as familiar with the surroundings and assistants as they are with their own families and home. This gives one a confidence and ease of feeling which is impossible when either operating in residence or strange hospitals.

These three general conclusions we present as our judgment on the preceding one hundred cases.

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## VENEREAL INFECTIONS WITH REFERENCE TO CRIMINAL, MENTAL AND NERVOUS DISTURBANCES

BY CURTIS R. DAY, M. D., OKLAHOMA CITY, OKLAHOMA.

The citizenship of the various states of our nation are awakening to the fact, that the subject of the venereal disease is one of vital importance, to the future welfare of this country, and are, therefore, studying it in its manifold appearances, especially with its relationship to the questions of criminal, mental and nervous defects.

The Federation of Woman's Clubs, in almost every state in the Union, are now taking active part in the discussion of this subject; therefore, we should not hesitate to discuss the same from a professional standpoint, and likewise add our knowledge of the subject to their efforts to elevate the human race. Going back to Biblical times, we find that even then venereal diseases had an effect not only upon the moral aspect of the "chosen people," but that even then these people realized that the offspring of diseased parentage, of venereal taint, were prone to be infected even to the third and fourth generation. Again Christ, when asked to restore sight to the blind man, was asked the question: "Who hath sinned, this man or his parents, that he was born blind?"

Before going farther in the discussion of this subject I wish to quote a few facts from the findings of a commission, appointed last fall, by the State Commissioner of Health, to examine into the physical condition of the wards of this state. There are in our State Penal and Charitable Institutions, in round numbers, 1,000 persons who have venereal diseases. It is safe to say that there are in addition to this number at least 200 idiots and imbeciles in the charitable institutions, that are thus afflicted as the direct result of hereditary syphilis. Of this 1,000 thus diseased: 489 are in the State Penitentiary at McAlester, and 239 are in the Reformatory at Granite.

Of the 489 at McAlester, I wish to call your attention to the following crimes for which they were committed to prison: Murder 72, manslaughter 54, assault to kill 40, grand larceny 74, larceny 56, burglary 58, forgery 39, robbery 24, rape 20, and under 12 different kinds of crime do we find the remaining 52 convicted. Careful study of the above figures will convince you that they are our worst class of criminals. Not considering the crimes committed by these cases, for a moment let us look at the cost of their care to the State. In round numbers we have 1,200 venereal charges for the State. Figuring the cost at \$200.00 per annum each (and that is what the state is paying for the care of its charges at the only institutions where they are cared for by contract), it is costing the state \$240,000.00 annually, to care for its venereal cases who are wards of the state. These figures do not include Court costs and do not include the care of County and city charges who are such as a result of venereal diseases. We are not over-estimating figures when we say that this state is spending one-half million dollars annually as a direct result of venereal diseases. The above figures do not include those who are able and do care for themselves.

Dr. Antonio D. Young, of Oklahoma City, informs me that his recent inspection of the inmates of the Charitable and Penal Institutions of the state so impressed him with the fact that hereditary syphilis was such an important factor in producing mental defectives that he was of the opinion that all syphilitics should be prohibited by law from marriage. He found syphilis present in nearly 20 per cent, and it is safe to assume many were undiscovered.

The following are a few statistics regarding the prevalence of syphilis and gonorrhoea. It is estimated by competent and most conservative authority, that in Europe from 75 to 85 per cent of the adult male population contract gonorrhoea, and 10 to 15 per cent have syphilis. In this country it is conceded that in our large centers of civilization, from 60 to 80 per cent of our male population have latent gonorrhoea. Gonorrhoea is the direct cause of from 50 to 90 per cent of all abdominal operations performed upon women. 80 per cent of the blindness of new born children is caused by gonorrhoea, and it is conceded that from 15 to 25 per cent of the blindness from all causes is due to this disease. It has been computed that hereditary syphilis kills every year in France 20,000 children. Syphilis, it has been asserted, is responsible for 90 per cent of the locomotor ataxia and a large per cent of insanity. The fact that these diseases are largely contracted in direct violation of statutory laws, together with the fact that those thus diseased lose, in many cases, their respectability, causes them to continue in crime. Children born of criminal parentage are handicapped in the race of life and are prone to become criminals.



Quoting from a speech of ex-Federal Judge V. T. Dickerson of Edmond, Oklahoma, who was District Judge in Kansas and for many years Federal Judge, having had as many as 5,000 criminal cases on his docket at one time:

“Mark well—you student of criminology—the well defined high-way between hereditary criminal and the criminal with good, clean blood running through his veins.

“You who have the milk of human kindness, whose desire is to lend a helping hand to the fallen, look carefully and see if the man has really fallen or whether he has only been on the incline and is gradually sinking, the process of sinking headed towards him dated generations back. My observation for years in examining criminal records and trying and sentencing prisoners is that in every kind of a community there are a few families who are the criminals, high and low, and their names appear on the criminal docket from generation until generation, and if the subject of your sympathy is one of these—harsh it sound to say so—yet I offer little hope, for you will be doomed to heart-breaking disappointments in your efforts to save him oftentimes.”

“On the other hand, the man with clean blood running through his veins, father, grandfather, great grandfather—good names—if he falls by reason of passion, temper, poverty or any dire necessity—he affords you ground for hope—there you will find appreciation—there you can extend a hand and some day the voice of this fallen one will rise up and call you blessed.”

The Medical Society of Greater New York appointed a committee for the study of measures for the Prophylaxis of Venereal Diseases. Dr. Prince A. Morrow acted as Chairman of this committee and submitted to the Society the following figures: Total new cases of gonorrhoea and syphilis for one year, 243,000; total old and new cases, 800,000. These figures so impressed Dr. Morrow that he was led to make the following statement:

“We may well ask why certain infectious diseases are elevated to the dignity of a danger to public health and every effort made to prevent their spread, while another class of diseases—compared with which the morbidity of the former is but a mole hill to a mountain, is completely ignored.”

Such reports as that of New York has led the citizenship of various states in our Union to organize associations for the study and prevention of venereal diseases. The state of California has organized a society of this kind and has enrolled as members, not only the leading physicians of that state, but educators of world wide reputation have joined with them in this work. Since it is a fact that the pathology of venereal diseases are taught to regular classes in Leland Stanford University, and that Sexual Hygiene is likewise

taught in Vassar College, why should we hesitate to discuss this matter?

In a state like ours—one known for doing things—let us not be behind the times with the subject under consideration. In the state of Indiana there is a law upon the statutes entitled “An act to prevent pro-creation of confirmed criminals, idiots, imbeciles and rapists, providing that Superintendents and Boards of Managers of institutions where such persons are confined, shall have the authority and are empowered to appoint a committee of experts, consisting of two physicians, to examine into the mental condition of such inmates.”

I am informed that where the operation of Vasotomy has been performed, the mental condition of these individuals in a large majority of cases has been improved, and in no case has their mental or physical condition been injured.

Dr. J. N. Hurty of Indiana says: “That the time has come when a woman has the tacit right to say to a young man who may ask her hand in marriage: ‘You demand chastity from me. In return I ask that you certify that you have the physical right to become my husband and the father of a family.’”

The public, having realized the importance of venereal diseases, are beginning to raise a hand and demand protection, and it behooves the medical profession to listen to their cry. The State Board of Health of California, October, 1910, adopted the following rule:

“Syphilis and Gonococcus Infections to be Reportable.

“Whereas, It is the duty of the California State Board of Health to encourage and maintain a progressive campaign against all communicable and avoidable diseases which may endanger the health of the citizens of the State; and,

“Whereas, The communicable diseases due to syphilis and to gonococcus infections are among the most prevalent and most harmful known to medical science; and,

“Whereas, The policy of the State Board of Health, of physicians and of educators, has hitherto been one of silence on this subject; therefore, be it

“Resolved, That the California State Board of Health declares that beginning January 1, 1911, syphilis and gonococcus infections shall be reportable, and shall be placed on the list of communicable diseases which local boards of health and health officers are required to report to the Secretary, it being provided, however, that until further action by this Board, physicians may report the facts concerning these diseases by office numbers instead of names of patients; be it further

“Resolved, That this Board officially calls the attention of the citizens of California to the contagious and infectious nature of these

diseases, and requests their co-operation in combating them by every available means—educational, sanitary, medical, social and moral.

“By order of the Board. Signed: WILLIAM F. SNOW,

“Sacramento, Cal., October 1, 1910.

Secretary.

The city of Detroit, Michigan, has a health rule very similar to that executed by the state of California. I am informed that the Boards of Health of various other states in our Union are seriously considering the adoption of similar rules to that of California. In the consideration of this health regulation, let us not forget that the little country of Denmark leads the civilized world in its management of venereal diseases, by affording free treatment for any of its inhabitants. Thus the individual has no excuse for not giving proper care to his ailment. Compulsory notification of the authorities by the attending physician is exacted, the privacy of the patient being safeguarded by number. Only neglect of their condition by the patients calls for police interference and treatment under quarantine. Such an ideal control of venereal diseases is possible in this or any other civilized country, and it is worth our while to study the example the little country of Denmark has set for the world. Quoting from the well known dermatologist of New Orleans, Dr. Isadore Dyer, who said:

“The United States Government should make syphilis a quarantinable disease, and as soon as possible local health authorities should endeavor to make syphilis a reportable disease.”

In regard to the educational side of this subject, it is not for lack of ability that we need stand back, for within our state capable men and women are found in all our cities and villages who are able to deal with the subject in a masterly way. Then let us put aside false modesty and do our duty, not only to the present generation, but to generations yet unborn. I do not consider it advisable to teach such pathology to our boys and girls before the age of puberty. After they are old enough to fully comprehend the subject may we hope to do good and at the same time avoid the instillation of wrong ideas in their tender minds.

In conclusion, let us join the organizations of other states in their zealous fight against the “Red Plague.”

#### BIBLIOGRAPHY.

In the preparation of this article, I find myself indebted to the State Commissioner of Health of Oklahoma, for valuable literature; to Dr. Prince A. Morrow of New York; to Drs. J. N. Hurty and H. C. Sharp of Indiana; Dr. Isadore Dyer of Louisiana; Dr. F. M. Green of California; Dr. Antonio D. Young of Oklahoma; Judge J. T. Dickerson of Oklahoma. In places I have quoted directly from the writings of these men and due acknowledgment is hereby made.

## DISCUSSION.

DOCTOR WILLIAMS, Dean of the University Medical School: I am complimented, being a stranger to you, by being called upon to open the discussion. I am not going to take your time throwing bouquets at Doctor Day—it is the kind of paper that should have been written years ago, and it seems that we are beginning to think of these things. We see how much is being done to prevent tuberculosis and considering how relatively calamitous venereal diseases are with relation to tuberculosis, it is a shame to our profession that we pay no more attention to it than we do.

It is impossible for me to discuss the paper in a technical sort of way, or to express all of the things that his paper has suggested to me. He speaks of prophylaxis. That, of course, is the only thing the state and the medical fraternity is interested in. When a man has contracted his gonorrhoea or syphilis, it is too late. The point was made here this morning that even the miracle working “606” cannot be such a miracle worker after all, when we know that one case of gonorrhoea may send a wife to the operating table twenty years later. The doctor has spoken of certain laws by California and other states regarding reports, suggesting isolation of these cases, but it seems to me that that does not reach the point, and will not reach the point of prevention. The only thing I see left is going to be education. He speaks of a course being given in Leland Stanford on the prevention of venereal diseases. I think this is too late. He says he would not speak of the pathology of venereal diseases to boys and girls before the age of puberty. I question whether or not that is too late. It may be best in individual cases to wait until that time. In some cases it would certainly be necessary to begin many years before puberty, for every one of you know that many, many boys have anticipated their sexual relation long before they reach puberty. I have seen boys seven years old with gonorrhoea. I have seen several cases myself, three that I recall. If I have seen three, how many boys in the United States of tender age, with gonorrhoea. It seems to me that the thing for the medical profession to do is to begin to educate where the real fault belongs. I think the boy who gets into trouble that way does so innocently, and the fault lies with parents generally, with the father, in not preparing the boy. You remember yourselves, when you were small boys, what it was, where was it that you first heard of the sexual relation? It was in the gutter, some bad boy of the alley began to tell you things, and presently he made it appear to you that you weren't a man until you had had intercourse and a little later you weren't a man until you had gonorrhoea, and that these things were necessary to prove your manhood. What led you to listen to the boy? Curiosity, nothing but curiosity. At first you knew nothing about it, the suggestion was made, and with a boy's natural curiosity, you investi-



gated—it is curiosity that leads to listening to these tales, which are of course exaggerated, and not presented in their true light. It is curiosity that leads the boy to personal investigation in these matters. I mention that, for if fathers were true to their responsibility to children, the boy would know something of these matters from him at home, before he would get them from a companion up the alley.

He has referred to the fact that this topic is being discussed by the Women's Federation, and further, I think it is proper to discuss it. I think it is a fearful criticism of the profession to let the women bring these matters forth, when we have known all these things for all these years and haven't offered to talk it openly. They are calling the word eugenics. Many books are being written on the subject of the education of the young child.

Personally, I had a very remarkable interview two years ago in El Reno. A young man twenty-two years old was going to be married six months later. His mother came to see me. She told me her son was pure, and now, when his girl had been there on a visit and was going away, that was going to be the hardest time of his life. She told me how she had raised him from the time he could understand anything, she had begun to inform him of the sex relation, not on the pathology of venereal diseases, but she taught him through nature studies, through botany, and through reference to farm yard animals that were matters of common sight, but without offense of any kind, she had taught him, so when he was old enough to understand the sexual relation and sexual pathology, he was prepared to receive from his father the definite knowledge, and that, it seemed to me, was the best mother and father I have ever heard of, and that it seems to me would be the greatest and best factor in preventing these venereal troubles and I think it is the duty of every physician to instruct and teach parents, and he can do much by conversation with the boys of his community.

DR. GAYFREE ELLISON: I think it is time we started in to take some action, not as individuals, but to get the whole force back of it, because it is one of the greatest problems we have. It is from ignorance that most of the young men contract gonorrhoea and syphilis, and they are the ones to be protected. The women are not as dangerous, except those who give it to the men from the red light districts, but the men have to go there to get it. It is the ignorance on the part of the boys, they are simply taught, they are taught as Doctor Williams said they are taught by their associates in the alley all about the sex problems and then they go and investigate it. I personally, have always maintained that this is a subject which ought to be taught in school. Probably not the pathology of venereal diseases, ought not to be taught to the young children in the grades, but some of the sex problems ought to be taught in the fifth and sixth grades, and gradually increased in each grade. But in the

high schools, colleges and universities—that is where the pathology of venereal diseases ought to be taught. The great majority of young men contract gonorrhoea after sixteen years old. While they stay at home there is no danger, but they go to high school and they get a little information there, out of the sight of their parents, and they go to the university and that is about the first thing they do, they get in with some rounder, probably, at every school there are a few rounders, and they tell you that having gonorrhoea is like having a cold, and we see young men every day who have contracted gonorrhoea, and then for two or three weeks, probably, they will have trouble and probably that goes away, and a year or two later they will show up with gonorrhoea. Within the last few weeks I saw a young man, you would think he was a model young man, at the university, and he contracted gonorrhoea two years ago, had been treated and was declared cured by a physician. Now, whether he was figuring on getting married, I didn't inquire, but he came to me and wanted to know—told me he had contracted gonorrhoea and wanted to know whether he still had it, he said he had no symptoms except he noticed there was a little brown substance in the end of his penis. I made an examination from the morning secretion, and by getting a very small amount of the secretion, it still has the gonococcus in an active form in it, and the thought he was cured. If he, after graduating from school married, he is bound to give gonorrhoea to his wife, and he has been informed so, and he is very much agitated about it, and wants to take treatment, but a course of treatment—I am very pessimistic about the treatment in chronic cases.

But there should be a course given in every high school, in which the pathology and the terrible consequences are taught. I recall young men in the medical school in Chicago that had never had any kind of venereal disease, that contracted it during their stay in the medical school, and then they would come around and say it was from ignorance. Not even in the medical school do they teach anything about it. It should have been taught to them when they are fifteen or sixteen years old. We cannot leave it to the parents, because they are brought up like everybody else, they don't know anything about it, they keep quiet about it, and if a boy comes home and tells some lewd story he has heard on the street, she tells him that is a wicked story and that is a lie, and she don't tell him the truth about it, and his father will probably take him out and give him a licking, and let it go over. It is silence is where the mistake is. Cases ought to be reported and I think that is a good method. I hope to see some day all these cases reported.

DOCTOR HARRY BREESE, Henryetta, Oklahoma:

Relative to reporting cases. It would have to be very rigid. In most of our small towns the druggist doctors more gonorrhoea than

all the doctors combined. I think it is a good law all right, but I would like to have the writer at the close of his remarks answer the questions along that line.

DOCTOR ROSS GROSSHEART, Tulsa, Oklahoma:

We have just finished a campaign, or I have at least, in part, in our city of Tulsa on this very subject. We had an election of our city officers, and a fight was made on this very proposition, and I went out on the street and fought my best and they said I was a fool. Not only a fool, but I was ignorant, and they said all manner of things against me. When I told them and showed them upon the proposition of prostitutes that were running wild in our town—there is not a rooming house in the town that you cannot go to and find from one to seven prostitutes, and there is eighty per cent, or maybe one hundred per cent of them that are infected with gonorrhoea or syphilis. I have in my little practice there four boys that are in the high school, who have chancres on their penis. I have found, by getting these boys' confidence, where it came from. It comes from the women who walk the street. I also have under my observation three girls who have chancre on their lips, and they are not from the class of people who live down in nigger town, but from the best people in the town of Tulsa. I go on the street and make a fight to try to get our city administration to take this matter up, and pay some attention to it, and our health department of our city, and they set upon me and say that I am a fool. I have advocated all my life the teaching of the children, from the time they enter school until they are out of school, the true facts of nature. We do not try to keep back from our children while they are in school why we take food into the stomach. We try to teach them the principle of self-preservation, except the one fact that drives more of them to hell than any other one thing. We sit back and say it is not right to poison their innocent minds, but we let them contract something that damns them for all time to come. You go out here all over the country and fight alcohol, and every other pest, white plague, build tuberculosis sanitariums, when it doesn't kill or cost in life one-tenth as much suffering and crime as syphilis and gonorrhoea, and we sit back here and ignore them. I tell you it is time for the people to wake up and exert themselves, and there is nothing that is true to nature, in my estimation, that is absolutely true to nature that should be kept from the individual.

DOCTOR A. L. BLESB, Oklahoma City:

The question of syphilis is as old as the history of civilization. It has probably been contended with by every era of civilization, and some writer has said that civilization is merely "syphilisation." Perhaps this is a good way to put it. Nations have wrestled with the problem, only to fall with it. The older countries were more thickly

populated and wherever population gathers together thickly, there seems to thrive this monster. It seems in our country, as population again increases, when the frontiers are moving farther away from us until after the frontiers have disappeared and the people have gathered together, it has lifted its hydra head here, and we are now tramping over the same ground and wrestling with the same proposition that the older civilized nations have been struggling with since time began. I believe with a great many others, we may resolve until we are black in the face; we may legislate till we see stars, it is just as Doctor Breese has said: When nine-tenths of the cases of gonorrhoea and also syphilis are treated by the corner drug store, what good will it do to enforce the physician reporting his cases? He doesn't see them. A large percentage of the cases of syphilis are not diagnosed until the tertiary stage we see and sometimes designate as syphilis. The acute stage has passed, the secondaries have appeared and disappeared and the patient has now entered that stage where he leaves all hope behind. It has even got so that when you have treated the patient for everything else, you give him a test and you will hit it nine times out of ten.

Medical inspection has been enforced in France. The statistics show what has been done in France—shows what it has done. Simply nothing at all. Medical inspection of the brothels has been an absolute failure. You have got to begin with the child—the child is never too small. What does education mean? To begin, to lead out, begin right with the child, let it be almost a matter of inheritance with him, but it must be impressed upon him. I have seen little girls of three years old with gonorrhoea. I have seen boys of tender years with gonorrhoea. How do these things happen? In the case of the boy I found that there was a servant in the house who has been initiated into the charms of Venus, and he had gotten the force of it.

In the case of a little girl, she was sleeping with her father, who had a blooming case of clap. But I don't know how she got it, but by contact, but that is not necessary in the case of a little girl child. I believe it is the duty of the medical profession—of the organized medical profession to lead this crusade, not to lag behind, and I don't believe we can do it by resolving, I don't believe we will do it by talking about legislation, but I believe we will do it by getting busy with our own clientele. Upon the general practitioner will rest this burden, I believe before you solve it, the general practitioner will be the man who must be depended upon. If you want to teach it in the school, all right, but I believe the family physician will be the only educator—will be the only man who can be relied upon to bring it right down to the heart of the home and there is where you will get results.



DOCTOR W. R. BEVAN: If we would impress upon our patients the seriousness of syphilis—and we have all had patients tell us that if they ever contracted syphilis they would feel like committing suicide, they realize that, that syphilis is a terrible disease and they look at it as more incurable than we do ourselves, but gonorrhoea is a matter for which physicians should be censured. One of the first questions a young man asks is “How long will it take to cure me?” As long as we have competitors practicing medicine who will tell patients that they can cure it, and apparently do, and only apparently, and dismiss them as cured, it is very hard for you, if you will tell them the truth, to hold your patients. I make it a rule to tell my patients who have diseases of this kind, or tuberculosis: “You may be apparently cured, but are you cured, is a question that can only be depended upon by testing and testing it.” I explain to them as sneerily as I can that it is impossible to reach it or destroy it by means of irrigation. My idea as to the cure of acute gonorrhoea differs from some, I believe it can be cured, and I believe it will be possible soon to cure all cases of gonorrhoea, with possibly a few exceptions. But if we tell patients that it will take time, I can’t say—you can’t say, and I never saw a person who could say how long it would take, but when you are dealing with a competitor who tells the patient he can cure it in a week or two, you are working under a handicap. If the physician would do his duty in telling the patient, it would help a great deal in eradicating gonorrhoea.

DOCTOR CLARK, Cherokee, Oklahoma:

I think the only way is to teach in the public school. It is a subject the family physician never discusses unless there is a case. If the education is commenced in the public school, then the question may be discussed by the family physician.

DOCTOR GLASSCOCK, Kansas City:

This certainly is a very interesting subject. Teaching in the school, and just what you should do, there is just two things about venereal diseases we must get back to—the fundamental ideas of venereal diseases. At the commencement, there is universally present sexual desire—very few exceptions. Opportunity to gratify these desires is always present in our large cities, usually in the smaller places. In all of the centuries of the world where they have tried to do anything with venereal diseases they take it from one standpoint or the other: To abstain from sexual intercourse except when they are married. You see what a problem that is. The next proposition is, if the sexual desire has to be gratified, make it safe to gratify it. It has been a failure because the good women believe the average husband is more likely to indulge in sexual intercourse outside the family. We are confronted by these two propositions, and just as long as the temptation is present, eighty per cent will

contract the diseases if they go out to gratify it. Venereal disease exists because the individual has a sexual desire, which is the predominant thing of his nature, and the only thing we can do is to educate mankind to abstain from sexual intercourse except when he is married. So you see we have a stupendous proposition, but if you make progress of one per cent in five years in the reduction of venereal diseases, you have done a wonderful thing. The only thing that remains is to say to these desolate unfortunates beyond safety and hope, when they come under our care, and nothing to do, except to say to others that there is a crime committed by indulging in these things.

DOCTOR J. W. DUKE, Guthrie, Oklahoma:

I wish to relate the beginning of a lecture of a very distinguished gentleman of New York, which first caused me to realize how prevalent gonorrhoea was in the world. This man lectured upon that subject. He began his lecture by saying: "Gentlemen: Every male citizen in the world twenty-one years of age now has, has had or will have gonorrhoea."

I think that was very strong. I think that man had gotten very enthusiastic over the statistics which he had gotten. But it only goes to show to what extent this man had been appalled by the frequency of the call for help in that direction by the young men of New York City of all classes and grades of society.

Another statement made to me by a distinguished citizen, a man whom most of you know, a fine citizen and a fine gentleman, but misinformed as to the moral teaching that should be taught in the community, came to me—I had been so foolish as to let my fellow citizens elect me mayor of the city, and I was trying to enforce the ordinances of the city in regard to alcohol and prostitution. He had been sent to me by a committee of business men of that town to tell me that I was destroying the town, that my course would kill it. I argued with him that I didn't think it would. I thought perhaps it would benefit the town. He said: "You are mistaken"—pardon me for quoting his statement—"cities are built by whores, gamblers and sons-of-bitches." This man was a high man in the church, a man of high moral character himself, a man who does not indulge in these things, but he believed he was right and pointed out that the town was growing because that was his policy—I don't think that is true—I think all towns build cities in spite of these places. These are some of the things you will have to contend with when you undertake to educate the people. You see how difficult it will be to teach the people these things and destroy and stop them,—they want this, probably in these communities, they want the dollars these people leave in the city, they want the saloon and the bootlegging shop, and they want the houses of prostitution, because they make money circulate through the busi-

ness channels of the city. I don't think you can begin by legislation—I don't think legislation will ever sotp these places, or have any effect on them. You can begin with the child, but it would be better to go begin with his grandfather—as a man said a number of years ago, in order to make a gentleman, you had to catch his great-great-great-grandfather and make a gentleman out of him. The sexual instinct in the male being is the most inherent, dominating trait of his entire being, from the time he reaches a sense of his individuality—without that you are no good, the community would be no good, if men were robbed or devoid of that instinct which was given to them by the great God who created him, but who did not intend that they should abuse it.

DOCTOR OLDHAM, Muskogee, Oklahoma:

This discussion has been very interesting to me. Not in a joking way, but I have a remedy here, for any man who thinks he can agree to it, to cure this trouble.

As long as we lionize the whore-master and ostracise the unfortunate girl, this condition will exist.

DOCTOR HARBER, Seminole, Oklahoma:

Doctor Duke spoke of getting at the grand parents—I think these children going to school are going to be grand parents some day, and I believe the proper way to do is to get after these children, and I think a real, good, radical step for one, is to talk to these children yourself. We have a town of about eight hundred and a school of about three hundred, and I know that I have once or twice been invited to talk at the school house. I have not done it yet, never felt that I was capable of making a lecture, but we have two other doctors in our town, they are both good men, and I believe if myself and these other two doctors would take one hour a month in that school and give them a lecture on sexual problems we could eradicate that from that school of three hundred children. I believe the only way we can do this is to put one or two hours in each school month and help it in that way.

DOCTOR SMITH, Guthrie, Oklahoma:

I have listened with a great deal of interest to the paper, and most excellent suggestions, showing that he has taken considerable pains with that paper. I have listened to the various discussions with great deal of interest, and it seems to me that the best way to get at this proposition is to commence at home and take an inventory of your own household first, before you start out on a national reform—wouldn't it be better to get your own self in line with that reform. Otherwise you will probably be lost by the wayside. Now, I want to know how many doctors in this house are absolutely taking their boys into their confidence, their daughters into their confidence or having the mothers of these children to do it and tell them

and show them the evils of that condition we are talking about? I dare say that if you take a rising vote on that proposition, on that vote you could probably count on the fingers of one hand, not exceeding both hands the doctors who have boys and girls who are teaching in the way they should go. I doubt that very seriously. I have a boy myself, who is just verging into that age, and about once every month—once a month, he and his little playmates, about the same age, about one Sunday evening a month, I take these boys into my private office, by the consent of their parents, and I talk to them about this condition—just what we are talking about. I have an atlas of skin diseases there, and I show them the plates, and show them the commencement of syphilis from its incipency on through, and I think I have made an impression on that party of boys, and have scattered the seed through those boys, that will probably save some boy and some family some trouble some time.

Gonorrhoea once means gonorrhoea twice, I don't care how you treat it. Simple treatment for gonorrhoea when in its infancy, if you are going to do that that is all right, and I am absolutely in favor of it, for anything that will bring about a reformation in any condition, under any condition or for any measure whatever that will reduce this evil that we have been talking about. It seems to me that if most boys are going to have it, that the place to begin is at home.

The mental diseases pictured here today are almost enough to cause any man to want to help strike upon some way that we may be able to eradicate this condition.

DOCTOR C. R. DAY, (Closing discussion.)

I am very thankful to you for the kindly discussion that you have given my short paper. It wasn't my intention to offer a remedy for this evil. As Doctor Blesh stated, it has been an evil almost from the beginning of the civilization of the world. As stated by some one that it progressed with civilization throughout the world, yet we remember the story of Green and his flying machine and the failure he made in the effort to run the flying machine. That didn't keep inventors from building a machine that did fly, and since the world has failed on this subject from an early date down to the present time is no reason why we should sit with folded hands and idly let the matter pass. I believe we should do something. I quoted to you the laws of California, simply to show you what is being done elsewhere in the effort to manage this there. As to the workings of this law in California and the law in Detroit, I am unable to say what success has been made, but that is an effort that they made, and along with that effort has resulted in California and also in a number of other states state organizations for the study of the prophylaxis of venereal diseases—for the study of the prophylaxis, in other words, they are beginning to study methods, to work out methods. In the United States we have an American organization for that study, and they are knocking at the



door of Oklahoma. I expect there are physicians in this house who have seen a circular letter with the minutes of the general or national organization of this matter.

I believe Doctor Smith is right in suggesting that we begin at home. As to what we should do I don't attempt to say. I believe we should begin right here—I believe the time is ripe when we should join hands in some way with the laity of this state in making a study of this subject. If the ladies organizations and ladies clubs of this and other states are taking an active part in this question at this time, why should not we in some manner join with them. Now, the suggestion has been offered by some one here that the way to do was for each individual to go back home and go to work for it. We have all attended societies before—we have got ideas that we were going to use when we got back home. We go home and forget all about it. I believe it would benefit us to start some systematic organization to which the laity are admitted as members, and join hands with them and let them help us out and that we may help them out in doing something toward this great question. Doctor Duke says that we would have to begin with the great, great, great-grandfather. I don't know whether he stuttered or not, but if he did, he only made it more emphatic, but our friend from Seminole hit the nail on the head when he said these school boys were going to be grandfathers sometime, and he is exactly right. Doctor Williams, I believe, misunderstood the paper, or I failed to make it plain in regard to the subject of teaching the pathology of venereal diseases. I intended it this way—that we should teach the pathology of venereal diseases to boys and girls before puberty. I believe parents should teach sexual origin before that time.

As to the question raised by Doctor Grossheart as to legislation on prostitutes—I believe its weak point is when you attempt to execute it. Suppose we have a rule, as has been attempted in some places, for examination and health certificates of prostitutes who are permitted to carry on their nefarious work in the cities. What have you done, when the woman has gonorrhoea like the man. She has had gonorrhoea, and the German friend who said "Man knows when he contracts gonorrhoea, but God only knows when he gets well," is coming very close to the truth. These cases may be examined, and no evidences of the disease found, and you would obtain no good from the regulation of the prostitutes. He also, I believe, made the statement that most of the diseases were contracted from the street walker. Not that I agree with him exactly, that the street walker is the worst harbinger of these diseases, the advantages we have in regulation of the prostitute and the houses of prostitution is ridding the streets of the street walker, as the worst feature of any city. I am very thankful for the discussion and thank you.

## ON THE POSTPONEMENT OF PHYSIOLOGICAL ARTERIO-SCLEROSIS\*

(ANTONIO D. YOUNG, M. D., OKLAHOMA CITY.)

Man comes to his death in four ways—by trauma, by acute sickness, by chronic disease, and, by senility. This paper is concerned only with the last named cause since the phenomena of old age are merely the symptomatic expressions of arterio-sclerosis. Hektoen of Chicago, writes me the changes in syphilitic sclerosis are distinct from the changes in other forms, and Adami of McGill University, in the annual address at a meeting of the Philadelphia Pathological Society in 1909, published in the American Journal of the Medical Sciences, states there are a number of varieties of arterio-sclerosis resulting from various causes, so in the present discussion such well known causes as syphilis, lead, and the infectious fevers, will be eliminated. This restricts the discussion to that form of arterial degeneration always present in advanced age. Archibald Church informs me this is a physiological change characteristic of the involutional period of life.

The problem that interests me and the solution of which I am attempting to present this evening is, "Why do these arterial changes occur so much earlier in some persons than in others?"

A search of the literature at my command and a considerable correspondence with prominent medical men has convinced me that the greatest cause for presenile arterio-sclerosis is a biological defect in the arteries—a defect not demonstratable either microscopically or macroscopically. When thinking of this phase of the subject I always recall those lines of Oliver Wendell Holmes in his immortal description of "The Deacon's One Horse Shay":

"Now in building of chaises, I tell you what,  
There is always *somewhere* a weakest spot—"

\* \* \* \* \*

"And that's the reason, beyond a doubt,  
That a chaise *breaks down*, but doesn't *wear out*."

So it is with the human being—"There is always somewhere a weakest spot," and too often it is the arteries. In 1884 "Modern Medicine," Osler speaks of the representative of an instrument house demonstrating Esmarch's rubber bandage: "They look the same," said he, "and they are made of the same substance, but they are not the same, one is shoddy, the other is genuine."

Now in a person with shoddy arteries what circumstances hasten the degenerative process known as arterio-sclerosis? First and foremost is the wear and tear of modern life. "Use maintains and in a measure sustains structure, but nowadays with the human machine it is top-speed or nothing, and we cannot wonder that it early shows signs of hard usage. Mental exertion is not of itself injurious and the

life of the student need not be one of great tension, but the mental exertion of the modern business man is of a different kind." (Osler). Living quieter lives, with less stress and strain, women are not so frequently the subjects of arterial changes as men, and, in consequence, they last longer.

Smith Ely Jelliffe tells me that in his experience the most common cause of arterio-sclerosis is excessive muscular exercise continued over long periods of time, and mentions particularly hard-working farmers, temperate in every way with the exception of hard work. He also calls my attention to the pathological investigations upon the arteries of the mummies of Egypt. Extensive degeneration of the blood-vessels was found and it is believed they were victims neither of alcoholism, excessive meat eating, or syphilis.

This naturally brings us to the consideration of exogenous poisons as a cause of the disease under consideration. Experimentally, it is easy to produce the most extensive degeneration of the aorta in animals, with nicotine; but, as Osler says, "When one considers the extraordinary quantities consumed over long periods of years by men who show no traces of vascular change, or not more than the ordinary wear and tear of life warrant, it is difficult to believe that tobacco can have a very important influence." It has long been taught that alcohol should be marked AA I when it comes to rating the causes of arterio-sclerosis. Many investigators, among them Cabot, reject the evidence entirely. It is difficult in any case to furnish proof that alcohol alone is ever the cause, as other recognized casual factors are always present, as, for instance, over-eating. I wish to say in passing that it is not the excessive eaters only who suffer from the effects of perverted metabolism, but also many others whose gastronomic activities are very moderate because of some unknown biological defect that causes a chronic, continuous misapplication of the chemistry of the body. No system of dieting will prevent in such persons the effects of the endogenous poisons thus formed. Healthy persons differ in the degree of the blood pressure, and it is also subject to frequent changes in the same person. This is a physiological necessity. However, it is extremely unusual to find it above 150 Mm. Hg. In arterio-sclerosis the blood pressure is always high. Is it the result or the cause of this change in the blood vessels? I confess I am unable to find out. Sometimes the hypertension precedes any external evidence of degenerated arteries, but this fact does not preclude the possibility of an unrecognized arterio-sclerosis. When speaking of hypertension, I mean, of course, persistent, continuous, increased blood pressure and not the temporary rise due to physiological activities. That condition in which the blood is charged with noxious substances is called hyperpyraemia and is always accompanied by increased blood pressure. In such cases the arterial degeneration is probably due to the intoxication, and not

simply the hypertension. In this connection it is interesting to learn that teetotalers eat more than drinkers, according to the repeated observations of caterers. Should a man drink some and eat less, or, drink none and eat more?

Mindful of the fact that this paper is concerned only with that variety of arterio-sclerosis physiologically pertaining to the involutional period of life, the symptomatology needs but scant mention. The failing sight, the decreasing strength, the mental deterioration of the old man, is a matter of common knowledge.

"A general flavor of mild decay,—  
But nothing local, as one may say.

\* \* \* \* \*

"Little of all we value here  
"Wakes on the morn of its hundredth year  
"Without both feeling and looking queer.  
"In fact there's nothing that keeps its youth,  
"So far as I know, but a tree and a truth."

It is seldom that man attains the age of "The Deacon's Master-piece" and "runs one hundred years to a day," but by a little forethought, barring accident, he can postpone his inevitable departure a little, sometimes, considerable, and enjoy the "Blessings of Old Age" so sympathetically described by Cato—"It is not hard for the old man to die," he says, "but is easily plucked from the limb like the ripened fruit."

Drugs play a very minor part in the prevention or treatment of this form of arterio-sclerosis, and the discussion of its etiology suggests the hygienic measures that should be maintained. I know of no better advice to offer than the words of that great and good man, Abraham Lincoln:

Do not worry; eat three square meals a day; say your prayers; be courteous to your creditors; keep your digestion good; exercise; go slow and go easy. There may be other things your case requires to make you happy, but, my friend, these I reckon will give you a good lift."

"End of the wonderful one-hoss shay.  
Logic is logic. That's all I say."

Security Building, May, 1912.



## ETIOLOGY AND TREATMENT OF NASAL CATARRH

BY WILLIAM BURTON NEWTON, M. D., MUSKOGEE, OKLAHOMA.

In discussing the subject of nasal catarrh, I wish only to briefly outline some of the more prominent etiological factors in the production of this widespread and varied-form ailment, which is so prevalent in this section of the country. Hypertrophic or atrophic rhinitis, which is commonly called by the laity, nasal catarrh, is never a clinical entity or disease within itself, but is only a symptom of some disturbed or diseased condition of the nasal cavities or the sinuses opening into nose. In my brief experience in practice in this section of the country, I have found that chronic sinus disease constitutes by far the greater majority of the cases applying for treatment, for nose, throat and ear conditions. This being the case I began to wonder at the widespread prevalence of this condition throughout this part of the country and naturally began to make a study of the causative factors; and in so doing I have noted the following, which may be called local predisposing causes:

1. The high winds which prevail during the greater part of the year, naturally causing an excessive amount of irritating substances in the atmosphere, which tend to keep the tissues of the nasal passages constantly irritated.

2. The cool spring and summer nights when one goes to bed with but little cover thrown over him, and wakes up later in the night uncomfortably cold. This is one of the most prolific sources of "summer colds," which often keep the nasal tissues engorged for weeks and months, and naturally interferes with the drainage of the nasal cavities.

3. By far the most important cause, to my mind, is the uneven climate during the winter months, that is, the sudden changes from warm to cold and the reverse changes which are almost as sudden. To illustrate, some years ago when the writer was visiting in Oklahoma during the month of February, at ten o'clock in the forenoon the temperature was 83 degrees, by six o'clock in the afternoon it had fallen to 16 above, and twenty-four hours later it was up to 65 again. It is during these sudden changes that so many of our patients "catch cold," which in most instances is the beginning of their catarrh.

That the symptom complex of nasal catarrh or rhinitis, be it either of the hypertrophic or atrophic variety, is dependent upon some disturbance of function, either of the nasal passages or the sinuses draining into it—no one will deny. We see comparatively few of these cases during the acute or early stages of the condition, and therefore, do not have an opportunity to study it during its incipency, as during the later chronic stages. The condition usually begins with a severe, long continued "cold in the head." During this

stage the nasal tissues are greatly engorged and the ostei of the sinuses occluded, preventing their proper drainage. The closing of the sinuses results in an absorption of air due to negative pressure, which, in turn produces a passive hyperemia of the lining mucous membrane, and extends to the surrounding tissues. When we consider that immediately over the openings into each of the sinuses, lies some other structure covered with erectile tissue and mucous membrane, we can readily see how that even a slight swelling of the nasal tissues can so easily block their drainage. The middle turbinate covers the opening into the maxillary antrum, the frontal sinus, and the anterior ethmoidal cells. The superior turbinate covers the opening into the posterior group of ethmoidal cells, and usually covers the opening into the sphenoidal sinus. These openings and structures adjacent to them, are so arranged that they are occluded by comparatively slight swelling of the soft tissues. The mucous membrane and the erectile tissues of the nose are richly supplied with blood vessels. These vessels quickly respond to irritation or vaso-motor disturbances, rapidly becoming engorged and pouring out an abundant discharge into the nose and sinuses. This secretion, which is retained in the sinuses, as a result of the ostei being closed, presents an excellent culture media for bacteria, and an infective condition of the sinuses usually results. This may be either an acute purulent or a slow plastic or hypertrophic inflammation, depending upon the kind and virulency of the micro-organism.

Associated with disease of the sinuses there is usually found an inflammatory condition of the structures adjacent to their openings, the degree of which depends on the extent and duration of the primary sinus disturbance. In the early stages the pathology is that of hypertrophy and turgescence of all the nasal tissues, later the tissues usually tend to atrophic changes.

**Treatment:** The treatment of nasal catarrh should be directed toward the primary cause, which in practically every instance is that of a sinus infection.

#### 1. Treatment during the acute stage.

During this stage of the disease medicinal treatment often gives marked relief. If a patient presents himself with an acute sinusitis, our first aim should be to relieve the pain from which the patient suffers, and to promote drainage from the affected sinus or sinuses. We usually find that the pain will cease almost immediately when drainage is once thoroughly established, consequently drainage should be our first and chief aim in treatment. Upon inspection of the nares we usually find the tissues much swollen and we can often elicit some one point of extreme tenderness, usually toward the outer border the middle turbinate. It has been my practice to pack the nasal cavity with tampons moistened with 4 per cent cocaine and allow these to remain in place fifteen minutes. On removing the tam-

pons the tissues are sufficiently shrunken to permit a close inspection of the nasal cavities. A small cotton wound applicator is then dipped into 1-1000 adrenalin solution, and then into pure cocaine crystals and the lower and outer border of the middle turbinate is massaged with this solution, which will insure the maximum shrinkage. In most cases following this procedure, drainage can be established, and when once established it should be aided by the use of the suction apparatus and warm alkline douches, followed by strong camphomenthol sprays. During the acute stage surgical measures should be used only as the last resort and after all other methods have failed to produce drainage, as the danger from infection following operative procedures is very great.

## 2. TREATMENT DURING THE CHRONIC STAGE.

The treatment of chronic catarrh or sinusitis is essentially surgical. The condition is one in which drainage of the affected cavities is the imperative demand, and this cannot be permanently and successfully accomplished by other than surgical means. After shrinking and anesthetising the nose thoroughly we should make a most careful and painstaking examination in order to determine definitely the sinus or sinuses involved. When we have succeeded in locating the source of the infection, our aim should be to establish permanent drainage by the most conservative method.

In a study of a large number of these cases in hospital, clinic and private practice, I have found in a great majority of all cases the ethmoid cells to be the location of the infection. True, in many instances, I have found the infection to be in the antrum, frontal or sphenoid sinuses, but in practically all of these cases the ethmoid cells were jointly involved. Sphenoid disease is a much more common condition than we have realized in days gone by—and in fact, more frequent than many of us diagnose now. But thanks to newer and improved methods we are now able to easily explore the sphenoid sinuses and ascertain if they are diseased.

In the surgical treatment of nasal catarrh the prime factor is to establish permanent drainage to the diseased sinus, and this followed by judicious and persistent after treatment, will, in almost every case result in permanent relief. In dealing with cases in which the frontal sinns or ethmoids are involved, it has been my practice to remove part, or all, of the middle turbinate body, explore the frontal sinus, if possible, through its normal opening, and thoroughly curette the entire ethmoid cavities. If the sphenoid sinus is involved, I explore it through the normal opening, and if necessary, enlarge the opening for more perfect drainage. If the antrum is involved, which it seldom is, it should be drained through the nose if possible.

I wish to cite a few cases to illustrate some of the varied types of sinus infections with which we come in contact, also the results to date from treatment.

1. Mr. S., AGE 35, School Teacher.

Has been troubled with nasal catarrh for the past five years. Frequent headaches, eyes burn a great deal, frequently injected, most marked toward the inner canthi. Has had some trouble with ears during past six months. Throat dry all the time. Coughs frequently, says he has a discharge in throat. On shrinking the nose the discharge was seen to be emanating from under the middle turbinate well back in the nose. Exploration of the sphenoid was negative. On removal of the middle turbinate and opening into the ethmoid cells they were found to be filled with an abundance of mucopurulent secretion and much polypoid tissue. Recovery from operation was very rapid although discharge continued for some time, later the secretion completely abated and the patient has not had any further trouble.

2. Mrs. L., AGE 28.

Has had nasal catarrh for the past seven years. Was treated for over a year, some years ago with but little benefit. Catches cold easily and nose stops up whenever she goes out in the cold air. Profuse post-nasal discharge causing patient to "hack" many times during day. Coughs frequently after she has been in bed for an hour or two, much coughing and "hacking" on arising in morning. Frequent severe headaches, especially when she takes cold. Examination showed discharge to be coming down over middle turbinate far back in nose, suction increased the amount of discharge. On inserting a cannula much discharge was blown from sphenoidal sinuses. I removed the middle turbinates, enlarged the sphenoidal openings and curetted the ethmoidal cells. All discharge abated in about six weeks and the patient complains of none of the previous symptoms.

3. Mr. S., AGE 57, Farmer.

History of frequent headaches and pain over eyes, much worse when he takes a slight cold, some tenderness over the eyes and decided tenderness on deep pressure on roof of the orbits. Intermittant discharge from nose, ropy in character and can only be expelled after frequent blowing on the nose. When discharge is expelled the headache usually diminishes, or disappears for a time. Patient says he gets dizzy when he leans forward. Upon examination, the anterior ends of both middle turbinates were found to be greatly enlarged and after thorough shrinking the discharge began to appear from under the anterior end of the middle turbinate. I removed the anterior end of both middle turbinates and after the swelling had subsided there was a very profuse mucopurulent discharge for several weeks, which gradually diminished entirely. The headaches disappeared and have not returned during the past eight months.

In closing I wish to enumerate the following conclusions which I have drawn from careful study of nasal catarrh, both clinically and from the literature:



1. That climatic conditions play an important role in the producing of nasal catarrh, acting only as a predisposing cause.

2. That the exciting cause is in almost every instance a diseased condition of one or more of the accessory sinuses of the nose.

3. The relief can be secured only by removing exciting cause, which in most instances resolves into producing drainage of the affected sinus or sinusses. In the acute cases this can usually be accomplished by medicinal means, while in the chronic stages surgical intervention is imperative.

DR. STOOKSBURY: That is quite an interesting paper to me. I have made a little study of this character of disease and I very frankly concur in the methods the Doctor has out-lined. I think there are only two kinds of the disease: the acute and the chronic. While we do not have much to do with the acute cases, we have what we call the catarrh and that is a chronic form. Not often you get to see many cases of the acute form. Some of the general men see them and they go along with them and nature usually takes care of the case and when it does not result in a cure we get them later on in the chronic form, and to my mind there is not much to be done except operations, surgical work. In attending those cases I never could get any results that are satisfactory without removing the enlarged turbinate bone. My method is to leave as much of it as possible and never disturb it unless it is very large. The middle turbinate bone is the one we have the most trouble with and the one that gives the best results from operative work.

I have in mind a case that had had an old chronic form for about ten years who had been treated by general men, who would douche him and scrub him out and clean him up and give him actual relief temporarily. He consulted me several times and talked about it. He was discouraged and wanted me to insure a cure and if he was cured was willing to pay the price, which is natural. He had been treated a long time. After looking him over I said I could cure the trouble, but not restore some damage that had already been done and so I took him up and told him if he would let me treat the case as I wanted to I would insure a cure of the discharge, but I would not insure some results because it had gone too far. I took off the turbinate and the result was not very satisfactory at first. It kept draining and I kept him coming. I told him I would treat him continuously, but I would not tell him when the cure would result. So he came along about three months, but I had to enret again. After cleaning up the spenoid the only treatment I did was to pack the nose with dry sterile cotton and occasionally I would wash it out. I had him remove the packing once a day. He came to me the other day, after having been discharged two months and his nose looked clean and good.

The doctor's paper covered the ground very well. There are

only two kinds and they are acute and chronic and we deal with the chronic cases, and operative treatment is the treatment.

DR. LEEDS: I do not know whether I understand the Doctor about the hypertrophic and atrophic forms. I wish you would explain that. One thing I would add to the Doctor's paper, that I did notice he spoke of and that is in reference to the origin of nasal troubles of all kinds. The Doctor, of course, could not cover all the different nasal troubles we have to treat. There is the trouble with the septum, which in my estimation at least ninety per cent of cases both of hypertrophic and atrophic forms are caused by deformities of the septum. We have sinus trouble. Then if we will examine we will find that the septum has spurs or rings or other defects and various forms of defects. We will find it in the region of the middle turbinate and you will find the defects very often in this region. You will find there is not room enough to allow for these various changes the Doctor spoke of without apparently boxing up the sinuses, while if the septum had been normal it would have allowed plenty of room.

One other point I want to emphasize: Many of these cases the Doctor mentioned we will establish drainage by removing one-third or possibly a little more of the middle turbinate. We will have accomplished a great deal from our treatment without having to remove the sinus. I had rather make two or three operations than to do too much, for whenever you remove any tissue from the nose you cannot replace it and if you get a large cavity you have a gas pipe to breath through. And what we want to guard against is not to remove too much tissue from the nose. What I do is to remove part of the middle turbinate and if necessary afterwards to remove some of the sinuses. In many cases I do not have to remove the middle turbinate after straightening the septum.

DR. FERGUSON: This is a big subject to cover in a short paper, or to discuss in one evening. The causes of catarrhal conditions, so called, I think are about as normal as any disease could possibly be. My experience has been that the great majority of cases of hypertrophic form evidently are caused from some obstruction in the breathing. Evidently the majority of cases of atrophic are secondary to the hypertrophic. There are quite a few cases in children, and especially in girls approaching the age of puberty that take on the atrophic. My experience has been that these cases are more prevalent in girls than in boys and from the age of seven or eight to fifteen. There is no question in my mind but what the involvement of the sinuses of the nose is the cause of the chronic catarrh. We are inclined to believe that the sinuses are secondary rather than primary. I believe that the hypertrophic condition we get in the nose is from obstacles as some disease as syphilis or tuberculosis or something likely to have like results. The sinuses become affected by the drainage.

Then the Doctor spoke about—I may have misunderstood him in his paper—that the sinusses were usually the cause of the condition. I would like to be corrected if that was not his statement regarding it. I believe that sinusses are the cause of a great many of our chronic catarrhal conditions. When that condition is present there is only one treatment and that is drainage, and whether that can be accomplished with ordinary treatment for nasal catarrh, or whether it is necessary to have a surgical operation is the question. Those other cases that have become chronic will go on and perhaps the only cure is by direct treatment of the sinusses themselves. I believe with the Doctor who read the paper that probably the ethmoid cells are most usually affected; more than any other sinus. The sphenoid sinus is usually the most easily drained of the sinusses on account of its location and size of the cavity. I would emphasize the correction of any deformity in the nose in any catarrhal condition. I believe it is impossible to cure a case of catarrhal trouble in the nose and leave a spur or something like that.

DR. DAVIS: We have all given more or less thought to the catarrhal condition. It has been my experience of later years, and I think I have been instrumental in relieving more severe headaches by treatment direct to the middle turbinate than by refraction. And I thoroughly agree with the Doctor on his conservation surgery on the middle turbinate and the ethmoid bone; that the removal of part of one brings about the desired results. It is not necessary to open your ethmoid. Simply enough for drainage. It seems in a great many cases relief may be had by surgical treatment of the middle turbinate where it is not abnormally large. I think it is of importance that we study the septum, although the defects of the septum are very largely caused from enlargement of the middle turbinate.

DR. GALLAMER: These suggestions are very interesting to all of us. I cannot tell you anything new, but we all know that the diagnosis of the cause of the trouble is the main thing. When that is done then your surgical work is drainage. If we can ascertain the main cause it is easier to relieve the whole trouble.

I enjoyed the Doctor's paper.

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DR. WILSON: There seems to be some difference of opinion about these conditions. And that is like many other diseases; there is so much division of opinion. In the hypertrophic forms there is some obstacle to the out let of the cavity and by reason of that they are going to take on disease, and to successfully combat the chronic condition, of course, drainage is the method used. All those sinusses open at one place, except one, under the middle turbinate and I do not see any way of draining them except by shrinking or removing the obstacle over the opening. The atrophic form where you have the formation of crusts and dry secretions seems to start often in early

childhood and especially in girls, and is not preceded by any hypertrophic condition, and it has given me more trouble than all the other nasal troubles put together. I do not believe in adults there is one in twenty that is normal. I enjoyed the paper and the discussion.

Dr. McHENRY: It seems like a fellow that has the last of this discussion does not have much to say. I am like Dr. Ferguson. As I understand the Doctor's paper, he gives the sinusitis as a cause for most of the cases of rhinitis. That is in cases of atrophic, but not the hypertrophic, but if it is the secondary probably then I am like Dr. Barnes. I am somewhat of a crank on septums. I believe if you can relieve by straightening the septum, do so rather than by removing the turbinate. Removing the turbinate is like taking a part off your radiator. I was explaining it to a man the other day in our city and he asked me if that was the radiator. I believe in many of these cases you ought to straighten up the septum and save the turbinate. I am in favor of conservative surgery in the nose. Preserve the mucous membrane and remove only the anterior turbinate and middle turbinate, and instead of doing that, if possible to relieve the obstruction by straightening the septum do it. Atrophic rhinitis is a question that lacks a whole lot of being worked out yet. The cause of rhinitis is a great big subject and very hard to cover in one evening.

Dr. LUKENS: I did not hear the paper read, but I agree with Dr. McHenry that the removing of the turbinate before overcoming the obstruction should be resorted to very carefully. Of course, any deformity of the septum which interferes with the proper drainage of the nose justifies removing, but the turbinates are like portions of a radiator. To destroy the tissue there by unnecessary operation is bad, I think. Of course, when you have an obstacle to the ethmoid cells it is necessary sometimes to remove as Dr. Davis said a very small portion of the middle turbinate in order to get drainage and relieve it.

Dr. NEWTON: I think I must have stirred up a hornet's nest. I feel my paper was a good bit more radical than I believe and that I did for the purpose of getting a good discussion of it. Dr. Stooksbury spoke or mentioned the treatment of a case, and we have heard of cases treated for months and years without permanent results and when they finally reach the atrophic stage and then it is impossible to procure and keep a drainage by medicine. It has been the practice when a patient comes into the office and complains that he cannot breathe, it has been the chief treatment to produce a hole through which they can breathe and as the middle turbinate in the easiest one to get to that is the one they work on. And the condition is not greatly helped. I think I have reopened four or five cases in about sixteen months' experience in our town that have been operated on previously.

As to packing in the nose that is a new idea to me. I had never thought of it. I think drainage is the principal result we are after



and if we pack the nose we block up what is trying to get out. I think atrophic rhinitis in most cases is a later stage of hypertrophic. We usually get the hypertrophic rhinitis and later the atrophic condition.

DR. HENDERSON: How would you cure atrophic rhinitis in case of chronic infection of some of the sinuses of the nose?

DR. NEWTON: The indications would be to open it and drain. I cannot agree with the Doctor that the septum causes ninety per cent of the cases. I failed to mention the importance of septum deformity in my paper. I could not touch on all the things. But I cannot agree with the Doctor that ninety per cent of the cases are caused by defects of the septum. If we had one that would keep up a chronic congestion I would agree with him that this should be remedied, but I think in the past few years the importance of the defects of the septum have been greatly exaggerated.

DR. HENDERSON: I would like to ask one question. If a young subject, in which you have more or less facial contortion and on examination you find rhinitis and affected large malar bone and obstruction of the septum of the nose and also some manifestations of other trouble is not that a case from heredity and not by a hypertrophic condition in the nose? And if it is, what remedy would be applied in this case?

DR. NEWTON: I would think that would be suspicious to a case of congenital syphilis which you probably have reference to. If we are to determine the history of syphilis we will never diagnose a case.

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## ISCHEMIC PARALYSIS

By ROBERT L. HULL, M. D., OKLAHOMA CITY, OKLA.

My motive in offering this paper to this society is for the purpose of calling the attention of its members to a surgical condition of which far too little is known. My experience in having met with several of these cases justifies me in the belief that they are of frequent occurrence. From the scarcity of available reports and statistics one might easily infer that the condition is an extremely rare one. For one is obliged to comb medical literature with a fine comb to find many references concerning it, and in the abstracts of the journals of recent years it is possible to find only an occasional article or reports of individual cases. Such a dearth of available reports and statistics is not to be explained as being due to a scarcity of cases, but because of the fact that they are not reported either because their true nature is not recognized, or because if recognized their report and publicity might cause embarrassment. It has never been popular with medical men to publicly proclaim and advertise their mistakes and unfortunate results, and inasmuch as these cases are the unfor-

fortunate results of surgical mistakes physicians have been and always will be loathe to report them.

The ischemic paralysis only partially suggests the lesion. Inflammatory muscular contracture is more explanatory and may seem to be a preferable term. Proper recognition has been given to him who first described the condition, and so it is often referred to as Volkmann's paralysis or Volkmann's contracture.

The wide differences of opinion as expressed in the articles written with reference to the pathological conditions present shows quite clearly how little the exact condition was understood. Modern writers, however, are agreed in that the contractures are the result of interstitial changes in the muscles themselves, due to deficient blood supply, and not primarily the result of a ischemia motor nerve paralysis.

The large number of injuries about the shoulder joint, arm, elbow, fore-arm, hand, wrist and in the lower extremity about the thigh, knee, leg, ankle, foot, makes these parts especially vulnerable. From their dependent positions and from the nature of the apparatus necessarily used in the treatment of injuries in these regions, these parts are predisposed to interference with the circulation and to swelling, which if allowed to persist for even a few hours may result in irreparable damage. Bandage too tight, splint too tight, expresses forcibly and correctly the cause of the condition under discussion. If applied so that the circulation is restricted and especially with the limb in a dependent position, changes quickly ensue and within a few hours the part becomes swollen, discolored, muscles hard and tender, and fingers flexed. Pain, numbness, and even loss of sensation usually accompany the swelling. If the condition is not immediately recognized and relieved, degenerative changes take place in the sensory nerves and in the muscles as to later result in deformity, the relief of which is baffling to the most astute surgeon.

As to the minute pathological changes induced there is a wide difference of opinion. The most reasonable explanation is that offered by Tillman, who states that from the swelling that ensues and from the diminution of blood to the part that the muscular substance undergoes coagulation necrosis and is subsequently absorbed, scar tissue taking its place. It is in reality a rigor mortis of the muscles although the motor nerves retain their power of conduction. If the ischemia does not last too long a time only a part of the muscular fibres undergo degeneration. The superficial nerves of sensation are usually involved and their conductivity is lost inasmuch as a considerable area of complete anaesthesia may develop.

If extensive degenerative changes have taken place, extreme deformities and contractures are certain to ensue and without treatment to persist and to increase. The deformity as produced in the hand is characteristic. The fore-arm is flexed at the elbow, the wrist flexed, and the phalanges flexed on each other but the metacarpo phalangeal ar-

tication remain extended. The finger can be straightened only when the wrist is flexed. In the lower extremities the contractures are not as marked, the resulting deformities are less.

The prognosis of these cases depend upon the number of muscular fibres which have perished. Early recognition of the impending condition, the prompt removal of the offending constriction, the immediate institution of the restorative measures may result in a cure to all appearances and purposes perfect. Other cases in which the condition is overlooked, the signs ignored, the destruction becomes extensive, and such cases do not seem to respond to any form of treatment and hence the prognosis is very bad. In extreme types little hope of relief can be promised.

It must be seen to that the possibility of this condition ensuing must be borne in mind when treating injuries of the extremities which require the application of any constricting apparatus. It matters not what material is used, whether a gauze bandage and a paste-board splint, or plaster of paris. It must be seen to that swelling does not occur beneath the apparatus sufficient to cause pain, numbness or loss of sensation. It must be remembered that proper immobilization afforded these parts is in itself sufficient to cause relief from the pain of the injury, and hence, pain persisting for several hours calls for an inspection of the parts. Sensation and voluntary motion of the fingers and toes should be continually tested.

The treatment, therefore, should be prophylactic and the condition not allowed to occur. But if it ensues the immediate removal of the apparatus is indicated, and if evidences of interference with the circulation and of paralysis be present, the hand should be supported in a position of hyperextension for a prolonged period of time. This, together with massage and electricity and active and passive movements usually results in a rapid and complete cure.

Unfortunately, however, most cases are not recognized until a considerable amount of damage has been done, the contractions have followed and deformities have taken place. In these cases the prognosis is grave and should be guarded. Results in some cases are obtained only after the most careful, persistent and painstaking treatment. Gradual stretching of the contracted tissues offers the most promise and should be attempted and rigorously pursued. Tenotomies tendon lengthenings and removal of section of both bones to shorten the limb are to be attempted only as a dernier resort.

I had intended to present to you today one typical case of ischemic paralysis of the upper extremity, fortunately one that has responded to treatment, I may call it cured. The young fellow, V. F., age 9, was brought to my office June 24th, 1911, presenting a marked deformity and contracture of the left fore-arm, wrist and fingers. His history as stated by his parents, was that in August of the previous year he had fallen from the back of a mule and had fractured

the lower third of the left humerus. Treatment had consisted in fixation and immobilization with the fore-arm at right angles from a period of five or six weeks. The splints were of pasteboard held in place with a circular bandage and were changed and re-applied three times. At the cessation of treatment it was found that the fingers were held in a position of flexion and that they could not be extended. Loss of sensation was complete on both surfaces below the wrist. Treatment with electricity, massage and osteopathy was inefficient and nonproductive of results. The condition grew progressively worse and at the time of his presentation at my office, ten months after the accident, the hand was in a deplorable condition, the contractions and atrophy most marked. There had been a slight improvement in the diminution of the area of anaesthesia. On the fore-arm two scars were noticed, latent evidences of pressure necrosis from the pasteboard splints. An inquiry of the parents with reference to swelling and to pain brought forward the statement that both had been present, the boy continually complaining of pain for the first week or ten days. The case from past experience looked hopeless, but treatment was begun. By means of a Palmer splint of plaster of paris and with felt pads so adjusted from time to time as to apply pressure, the fingers were first straightened and later the wrist so that it was finally possible to place the hand in a position of hyperextension. This, together with massage and forcible stretchings has brought the hand to its present condition. The contractions gave up only after the most persistent and long continued treatment, and that it was finally successful was due to the full co-operation of the parents and the little fellow himself. Upon the discontinuance of treatment an aluminum splint was made, so bent as to hold the hand in a position of marked hyperextension. This apparatus is applied at night, the boy having full use of his hand through the day. The end results have exceeded all expectations, and a careful inspection would show that the hand is nearly of equal size with its fellow, the hand is useful, of good strength, and that sensation is normal. For obvious reasons the parents have never been acquainted with the true condition.

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DOCTOR JOLLY, of Oklahoma City:

I enjoyed the paper. I think that it is a good paper and I want to emphasize one thing and that is prophylaxis or prevention of this ischemic paralysis. The tendency of the profession is to put up a fracture in a permanent dressing at once. Now, we know that the swelling of the limb increases for at least three days and it is up to a week or five days before that swelling disappears. I know in my early practice we felt that a fracture ought to be put up immediately after its occurrence and put up in some permanent dressing. I believe that fractures should be put up at least for the first five days in



a temporary dressing except where we want extension. I believe that fractures ought to be examined at least every twelve hours for the first two or three days, and the finger nails and toe nails observed to find out the condition of the circulation. I personally have seen only a few cases of this condition, but I can easily understand how they could occur in anybody's practice where the dressings were not examined every day for the first two or three days. That part I wish to emphasize and believe it to be always wise to make the first dressing of the fracture a temporary one and the fracture to be examined at least every twelve hours for the first two or three days.

DOCTOR KUHN, Oklahoma City.

I don't care to discuss Doctor Hull's paper although I got the gist of it. I know what Doctor Hull's feeling is, and I cannot help saying that we should not pass this by without understanding that this condition occurs in the practice of the very best physicians. I believe that the dressing ought to be examined a little earlier than Doctor Jolly suggests because Doctor Hull says that the condition may arise within the first three or six hours frequently and that is what you must avoid.

DOCTOR F. L. CARSON, Shawnee:

I had the misfortune to see two of these cases recently. I was unfortunately in one case at the time the paralysis occurred. A boy was thrown out of a wagon and his forearm was fractured about the middle. The distal fragment was almost at right angles to the arm. We had a hard time reducing it and the displacement tended to re-occur. I don't think that we used much pressure. It was done about nine o'clock at night. The next morning the splints were removed and the damage had been done between nine o'clock the previous night and eight o'clock the next morning. The other case occurred in the practice of a competent general practitioner with the same results. The results in the first case and I might mention that we used massage and gradual extension of the tendons but we didn't seem to accomplish a great deal. The case was later operated upon with fair functional results.

DOCTOR HULL, closing discussion:

I want to bring out the fact that these cases occur much more frequently than is commonly thought. They are often passed off and the paralysis explained as being due to a separation or laceration of the nerves. I recall at this moment a case which occurred following treatment for fracture of both bones of the forearm in which it was thought that the resultant paralysis was due to nerve separation but which was in fact a case of ischemic paralysis. I have a friend who was very glad at one time to be released from such a case upon the payment of one thousand dollars. It matters not what dressings are used. These cases will occur with elastic as well as with immaobile

dressings. The matter of putting up fractures in a fixed dressing must rest with the individual judgment of the man. Personally I have no hesitation in putting up a fracture immediately in plaster of paris if I can have the continual observation of the patient. It is true that swelling will occur, but in my opinion nine tenths of it is due to faulty dressing and not to the fracture. If there is any feeling in your mind that it may be necessary to remove the dressing on account of the swelling, the plaster of paris while soft may be split down the middle. It is necessary that the plaster of paris be carried to the most distal extremity. I have seen fifteen or twenty cases of ischemic paralysis and under early proper treatment most of them recovered. Three or four are hopeless and one such case will serve to make a mental impression that it will not be easily forgotten.

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## SEROUS EFFUSIONS---PERICARDITIS WITH EFFUSIONS

DR. M. H. FOSTER, OKTAHA, OKLAHOMA.

This paper is not designed for didactic purposes, but is rather a digest of some of the author's recent clinical difficulties, presented to his esteemed confreres with a hope of obtaining any assistance which they may be kind enough to offer, for the benefit of at least two of his patrons whose fate is now being weighed in the balance against the gravity of a pericardial effusion. Let us, therefore, systematically recapitulate the subject of pericardial effusions, that we may enter into the clinical discussion with refreshed memories.

*Etiology:* Being unable to indict any definite and specific infectious agency with a charge of pericardial interference, we have concluded, that all such lesions not traumatic are due to but two causes, (1) toxic substances, (2) excrementitious materials accumulating in the blood.

Examples of the former cause are found when pericarditis follows any of the acute infectious diseases in general, though it seems to be preceded by acute articular rheumatism in as many as 60-75 per cent of the cases. In pericarditis following nephritis, we have the best example of the excrementitious cause.

*Pathology:* As in any other serous inflammation, the first stage of pericarditis is characterized by hyperemia, roughness, and exfoliation of the epithelial cells.

Resolution may set in at this point and prevent further pathological development, but more often the first stage is followed by the second, or stage of effusion, with which we are interested in this paper.

The pericardial layers are separated and the sac distended with a clear straw colored transudate which may amount to as much as two pints. Even now it is remarkable to the writer's mind how far

reparative processes will reach. For in favorable cases nature will yet absorb this effusion altogether or in part, and the pericardial surfaces are then brought into reapposition with or without union of the opposing surfaces. Organization will either be complete, by bands of adhesion or villus—so that the pericardial surfaces resemble the buttered sides of two slices of bread when pulled apart. But as organization, suppuration and all post-effusive phenomena are classes in the third stage they lie beyond the consideration of this paper.

*Symptomatology:* Bearing in mind that the symptoms of a pericardial inflammation will depend directly upon the stage of a given case, we should investigate the five (5) general symptoms of heart lesions, being observant constantly for the special signs of each individual case. (Cardiac asthma, papitation, pulse, pain, dropsy.)

The usual attack is heralded by a rigor or a sharp pain, frequently preceded by discomfort and distress about the heart, which finally amounts to a decided dyspnoea. As pressure from the effusion increases and encroaches upon the lung, dyspnoea becomes more marked, heart's action more disturbed, frequent and irregular. Frequently the left lower lobe is compressed, giving a Skodiac or even an absolutely dull percussion note in the lower axilla or about the angle of the scapula. Breathing sounds are bronchial-vesicular and there may be egophany. A very large effusion is capable of producing dysphagia, but what has been more prominent in the writer's experience is the pulsus pirodoxus of Griesinger, in which the pulse beat is weakened and accelerated during inspiration. Passing over the to and fro rub of the first stage we go at once to the signs of the second stage and find on inspection a bulging precordium with interspaces obliterated, and an indistinct or absent impulse, as the increasing effusion carries the heart further away from the chest wall and gives it a more horizontal position. Percussion reveals a most striking change. The area of cardiac dullness is peculiarly enlarged, rudely triangular in form, with the apex near the left sterno-clavicular junction and the base line, which may extend from nipple to nipple is about on a level with the seventh (7) rib, or may even displace the diaphragm. We do not lay great emphasis upon Roteh's sign of absent resonance in the right fifth (5) interspace, for we regard it as only a matter of confirmation to be elicited after one is cognizant of pericardial fluid. Auscultation is confirmatory to palpitation and in addition lends a characteristic distance and indistinctness to the heart sounds. Though these sounds do not always disappear we can report one case where the heart sounds were completely obliterated. Rarely there is a basic systolic murmur without transmission.

*Diagnosis:* In arriving at our diagnosis we should never forget the importance of acnte articular rheumatism. This is so important a page in pericardial histories, that frequently when it is not dis-

tinct in itself we may not be far amiss in assuming the rheumatic toxin to have expended itself entirely upon the pericardium. A careful physical examination of the patient with proper attention to the special signs introduced by Rotch, Bamburgh, Griesinger, Kussmaul and Ewart should help us to a correct conclusion without much difficulty.

*Prognosis:* The prognosis is variable and can only be determined for each individual case.

*Treatment:* In treatment there is nothing so beneficial as REST, properly combined with good judgment. Although Tyson of Pennsylvania University, maintains that in no other disease is he so well satisfied with the efficiency of a blister both for preventing effusion or promoting its absorption once we have it, for our part we had almost decided that our share of the blistering had about been all used up by the ancestors preceding us. In our hands, for the relief of pain and dyspnea nothing is so satisfactory as a hypodermic of morphine and atropin, which has produced for us a relief even more decided than that given by adrenalin in bronchial asthma. We employ either hot or cold applications over the precordium, allowing the patient his choice of the one producing most comfort. Strychnine has apparently won a permanent place as a heart tonic; we usually give it in the form of the Elix. I. Q. & S.

When we get down to bedrock, however, we find but one sheet anchor and only one. This will prove to be digitalis, which should be administered in no other form than the freshly prepared infusion digitalis foliorum. We reserve its exhibition usually until we notice signs of failing cardiac integrity and dropsical swelling about the ankles. Then it is employed in just the dose which will maintain cardiac compensation and prevent edema and no more, for, like alcohol, it has a therapeutic use so great that its abuse may be correspondingly disastrous. Liquid food at first, then eggs, fish and game should be allowed as signs of convalescence appear. In consideration of nature's wonderful aptitude at absorbing a simple effusion and also that the relief following a successful pericardial parasyntesis is seldom followed by complete recovery, and also because our series of cases were each rapidly nearing the end of their natural span, we have never yet advised or done a tapping of the pericardium for simple effusions. Should the case be one of pyopericardium, however, we would strongly urge a complete and thorough surgical drainage.



## AN OUTBREAK OF MANIA ASSOCIATED WITH MALARIA AND HOOK-WORM INFECTION

(BY C. D. BLACHLY, M. D., NORMAN, OKLAHOMA, PATHOLOGIST TO THE  
OKLAHOMA HOSPITAL FOR THE INSANE.)

Mr. A. L. C., a farmer 26 years of age, was committed to the Oklahoma Hospital for the Insane from Grady County the last of May of the present year.

The family history was reported negative as to mental disturbances; the patient's personal history is negative. He had moved to Oklahoma from Alabama some four months previous to the outbreak of mania. A few weeks after entering the state he began to "chill." A physician was consulted for this trouble and in the words of the patient's father, "Soon broke up the chills." A few days later the patient had a sudden outburst of mania in which he attempted to kill his wife and children. His temperature at this time, as reported by his wife, was very high. He was adjudged insane and sent to the hospital.

The writer, in consultation with Dr. Stewart, first saw the patient just after he had had a slight chill. This was in June, about ten days after his commitment. Blood smears were taken and were found to contain many tertian malarial plasmodii. A differential leucocyte count showed over 5 per cent eosinophiles so it was thought best to examine the stools for evidence of intestinal parasites. Numerous ova of the *Uncinaria Americanis* were found.

Liberal doses of quinine, Fowler's solution, and thymol soon had the patient on the road to recovery and he was able to return home.

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## EDITORIAL

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### ROBERT L. OWEN, AND WHAT WE OWE HIM.

On August 6th, the people of Oklahoma overwhelmingly renominated Robert L. Owen for the Senate; the returns giving him the nomination at about two to one over his opponent, Ex-Governor Haskell.

The medical profession of the state should feel highly gratified at this for they were undoubtedly a considerable factor in achieving the result.

It is well known that Mr. Owen has brought down on himself the combined opposition of the Christian Scientists, Osteopaths, Chiropractics and other schools of belief or practice concerned in the treating of the sick by his introduction and advancement of the National Department of Health Bill and he was especially the target for the attacks of the League for Medical Freedom who for a long time have

maintained a lobby and headquarters at Oklahoma City from which literature was sent over the state attacking the proposed law and which indirectly allied the scattered forces into a formidable opposition. Dr. L. P. Crutcher, an irresponsible lecturer attached to this more irresponsible League, made trips to different parts of the state and openly attacked Senator Owen for his stand in the Department of Health Bill.

The medical profession of the state has no explanation to make to this League, for the League is not acting in good faith. Its promoters are mostly people who have heretofore come under the ban of the law in various ways and places, they have had their matter excluded from the mails on the ground of fraud, they were promoters of some of the greatest patent medicine swindles ever foisted on an ignorant public and their hysterical attitude as protectors of the Constitutional rights of the people is not assumed in good faith and necessarily bears the stigma of self interest and dishonesty; so, to them we owe no explanation, but to those people who honestly believe that the passage of the Owen Bill would deprive them of their constitutional right to employ any kind of a physician they see fit, the medical profession as individuals should carefully go into the proposed law step by step and explain its meaning and thus disarm an opposition which comes probably more from ignorance and misinformation than from any other source. They do not and cannot understand the altruistic attitude of the medical profession, they do not understand that the profession is constantly limiting its income by limiting the spread of disease. We should put them right wherever possible and this can be done by patience and proper explanation. Certainly Senator Owen should not have to undertake this scattered and individual task; we should do this much to assist him.

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## THE HARVEST TIME FOR COUNTY SECRETARIES AND SOCIETIES.

We, the physicians of Oklahoma have much to do the coming few months in addition to the usual routine of re-establishing the county society after its summer months of vacation taking.

A strong effort should be made to stimulate additions to membership and create further interest in medical organization in the state for several reasons. Aside from the fact that no physician can afford not to be a member of his county society for the good he will get out of attendance or the benefits he will confer on his fellow worker by his superior knowledge of medicine there is the added fact that we will in January have another convention of the Oklahoma Legislature which at this time is an unknown quantity from the standpoint of enlightenment and progressiveness.

It is to be hoped that this session will prove more of a matter of pride to the people of Oklahoma than any of its predecessors have

and this can certainly be the case without much effort on its part for in the matter of medical legislation the late acts or omissions at the hands of our legislative bodies have not been matters to be "pointed at with pride." It is very true that we are largely to blame for this condition ourselves; the average physician has little time to devote to the consideration of medical laws or improvements in them and aside from feeling disgusted at some act directly raising his ire he soon dismisses the matter for others more pressing, but many of the medical profession are eminently fitted for legislative work, both from the standpoint of intelligence, diplomacy and solidarity and these men should be assisted and encouraged to make the necessary improvements in our laws which at this time certainly need some rewriting. The county secretary and county society should make it their business to show their representatives that the medical profession is not an enemy of the people ready to cut the throats of every one, they should be taught that we have no ambitions to foist a medical trust on the people or that we want law excluding every other school from the field of practice, but that we stand for humanity and its protection first and our own individual interests afterward.

To our discredit and shame we have had the spectacle of the most ignorant and unscientific lobbyists buttonholing our legislature and influencing them in various ways to maintain us in our present comparative state of backwardness in medical legislation. The most outrageous statements as to the objects and aims of the medical profession in seeking medical legislation have emanated from these sources and gone unchallenged or nearly so simply because we have made it the business of no one in particular to point out to the legislature what we stand for and what we want.

The demand of the medical profession will bear the scrutiny of any investigation and our aims should be bared to any one seeking to know them, but there must be concert of action and effort to produce results. We have remained in the background long enough and it is time to assert ourselves.

Every effort should be made to show your local representative where you stand and you should show him before he goes up to Oklahoma City what our needs are and not leave him to be influenced by disreputables and lobbyists who are working for selfish ends.

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### HAY-FEVER HINTS

We are now well into the season when the services of the physician are urgently demanded by the victim of vasomotor rhinitis—a season dreaded not alone by the patient, but, not uncommonly, by his medical adviser as well. Particularly is this true of the latter if he has not kept abreast of the most modern ideas on the therapy of hay fever. In any event the disease is one that tries the patience and calls

for the application of remedial agents that have been proved beyond peradventure.

In the treatment of hay fever the physician rarely has an opportunity for the application of preventive measures. His help is usually sought only after the attack has manifested itself—when the patient is suffering (acutely, in most cases) from the ravages of the disease. Effective treatment is then demanded—and promptly, too. Administration of the suprarenal substance in the form of its isolated active principle, Adrenalin, is undoubtedly the wise procedure at this juncture. One feels safe in saying this in view of the long and effective service which has been rendered by this agent in critical emergencies.

There are a number of forms in which Adrenalin is successfully used in the treatment of hay fever. Adrenalin Chloride Solution and Adrenalin Inhalant come naturally to mind in this connection. The substance is also incorporated in the several Anesthone preparations—in Anesthone Cream, Anesthone Inhalant, and Anesthone Tape, all worthy of confidence, and especially worthy of trial in cases in which for any reason the older Adrenalin products seem not to be indicated. The Adrenalin and Anesthone products, as is well known perhaps to most physicians, are manufactured by Parke, Davis & Co. An exposition of their uses in the malady in question, together with the technique of administration, is now appearing in the commercial pages of the leading medical publications. Practitioners are advised to consult these current announcements.

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#### SPECIAL TRAIN FOR OKLAHOMA MEMBERS ATTENDING THE SOUTHWEST MEETING AT HOT SPRINGS, ARK., OCT. 8, 10, 1912.

If a sufficient number of members who expect to attend the meeting at Hot Springs will advise the Secretary, Dr. F. H. Clark, of El Reno, Okla., of their intentions he will arrange for a special train over the C., R. I. & P., leaving El Reno, Okla., about 6 P. M., and arriving at Hot Springs in ample time for the morning session the next day.

This will save practically one whole day to those who take this train.

So, if you are planning to attend, write Dr. Clark at once and if you are planning to take your wife, tell him of that also.

The train will consist of Pullman cars and dining cars only with ample accommodations for all.



PERSONAL NEWS OF THE PROFESSION.

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Dr. I. B. Oldham is motoring to Kentucky. He is accompanied by several members of his family.

Dr. George Lamotte and Lea A. Riely of Oklahoma City are in Vienna.

Dr. W. E. Dicken has resigned as City Physician of Oklahoma City and Dr. R. S. McCabe fills the vacancy by appointment.

Dr. J. H. Barnes of Enid is in Chicago taking in the clinics.

Dr. P. P. Nesbit made a boat trip of ten days along White River in Missouri.

Dr. B. A. Hall of Oklahoma City has removed to Kenefick, his office is taken by Dr. W. T. Johns.

Dr. and Mrs. J. Hutchings White of Muskogee went to Indianapolis where Dr. White received a new touring car going from that place to Buffalo, their final destination was Boston where the doctor will take up post-graduate work.

Dr. A. S. Risser of Blackwell will go to Boston for study this summer.

Dr. C. N. Ballard of Oklahoma City has been confined in a Chicago hospital with illness for several weeks.

Drs. A. L. Blesh, L. Haynes Buxton, H. C. Todd, E. S. Lain and R. L. Foster have been appointed to the Faculty of the State University.

Dr. W. T. Tilly of Muskogee has opened up a private hospital known as the M. O. and G. Hospital. The institution is open to all reputable physicians.

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## A NEW OKLAHOMA MEDICAL JOURNAL.

Dr. J. M. Cooper of Enid has recently entered the editorial field in Oklahoma. Dr. Cooper is issuing The United States Medical Journal, which is a combination of the Davis Magazine, The Oklahoma Physician and the Medical Forum. He has had considerable experience and work in this line and should have the success he deserves. He proposes to operate a first-class medical journal along strictly ethical lines.

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RAILROAD RATES FOR SEVENTH ANNUAL MEETING OF  
THE MEDICAL ASSOCIATION OF THE SOUTHWEST,  
HOT SPRINGS, ARK., OCTOBER 8-10, 1912.

Rate of one and one-third fare for round trip. To secure this rate, ask your ticket agent for Annual Tourist Ticket to Hot Springs and return.

## NEW BOOKS

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### COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL. (MAYO CLINIC)

Collected Papers by the Staff of St. Mary's Hospital (Mayo Clinic) for 1911. Octavo of 603 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5.50 net.

The collected papers of the Mayo Staff have come to be looked for and anticipated long before their appearance. In this book the publishers have maintained the excellence of type, paper and cuts for illustrative purposes heretofore used. The book is profusely illustrated and the illustrations and cuts are very fine and pertinent to the text.

No surgeon or student of surgical technique can or will afford to be without this book which gives the reader a very intimate knowledge of the work being done by the Rochester surgeons and their staff.

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### SEXUAL IMPOTENCE NEW (4TH) EDITION ENLARGED

Sexual Impotence. By Victor G. Veeki, M. D., Consulting Genito-Urinary Surgeon to the Mount Zion Hospital, San Francisco. Fourth edition, enlarged. 12mo of 394 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$2.25 net.

For many years Veeki has been known as one of the authorities on this subject which causes much woe to the general practitioner and discontent on the part of his patient. Veeki makes clear many of the vexatious matters ament impotence and paves the way to a saner and better understanding between the patient and physician. No matter causes so much worry to the patient as impotence, no condition so easily makes him the prey of charlatans and quacks and often no condition can be more easily handled than this if the practitioner will be sensible and patient and take the victim into his confidence. Veeki points out the way in a masterful and scientific manner and if his suggestions are followed a great deal of misery may be avoided.

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### HOME NURSE'S HANDBOOK OF PRACTICAL NURSING

Home Nurse's Handbook of Practical Nursing. A manual for use in Home Nursing Classes, in Young Woman's Christian Associations, in Schools for Girls and Young Women, and a working textbook for mothers, "practical" nurses, trained attendants, and all who have the responsibility of the home care of the sick. By Charlotte A. Aitkens, author of "Hospital Management," "Hospital Training

School Methods," "Primary Studies for Nurses," "Clinical Studies for Nurses." 12 mo. of 276 pages, illustrated. Philadelphia and London; W. B. Saunders Company, 1912. Cloth.

This is a plainly written little work on nursing primarily intended for the instruction of impractical or home nursing. It is well and sufficiently illustrated.

The book contains chapters on How to Keep Well, The Sick Room and Nurse and the Preparation of the Patient, the Bed and Bed-making and is rather full of the questions of dietetics and sick feeding in general as well as the symptoms of sickness.

The care of the baby, accidents and emergencies, maternity nursing and the communicable diseases are well considered.

This book should be recommended to the student and housewife or other person who has the responsibility of the home care of the sick on their hands.

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### GYNECOLOGY

The Practical Medicine Series for 1912. Volume IV. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and C. Von Bachelie, M. S., M. D., Assistant Professor of Obstetrics, Chicago Polyclinic and College of Physicians and Surgeons; Gynecologists to the German Hospital, Chicago. Cloth, 228 pages, Illustrated, Price \$1.25. Chicago, The Year Book Publishers, 180 North Dearborn St.

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### THE CARE OF THE SKIN AND HAIR

By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois, Cloth 182 pages, Slightly Illustrated. New York and London. D. Appleton and Company, 1912.

This little book considers the hygiene of the skin and not the treatment from the drug standpoint. It contains much in the way of practical suggestions to be carried out by the patient and is of such convenient size and scope that it may be easily mastered by those interested in the subject.

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### PELLAGRA

History, Distribution, Diagnosis, Prognosis, Treatment, Etiology, By Stewart R. Roberts, S. M., M. D. Associate Professor of the Principles and Practice of Medicine, Atlanta College of Physicians and Surgeons, Atlanta, Georgia; Physician to the Wesley Memorial Hospital; Formerly Professor of Biology in Emory College. With eighty-nine special engravings and colored frontispiece, Cloth 272 pages. Price \$2.50, St. Louis, C. V. Mosby Company, 1912.

This is the second work by an American writer on this much discussed and studied disease. The subject of pellagra is at present one

of the most interesting to the profession of this country and furnishes many points of difference and conjecture to students of the affection. This work undertakes to classify the disease, a task obviously difficult, when its etiology is yet shrouded in mystery. The author also considers the history, geographical distribution and other matters of interest pertinent to the subject. The book should have a kindly reception from the hands of the general practitioner.

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### ARTERIOSCLEROSIS

Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment. By Louis M. Warfield, A. B., M. D. Assistant Superintendent and Resident Physician to Milwaukee County Hospital; Assistant Professor Medicine, Wisconsin College of Physicians and Surgeons, Milwaukee, Wis.; Formerly Medical House Officer Johns Hopkins Hospital, Baltimore, Maryland; Member American Medical Association With an Introduction by W. S. Thayer, M. D. Professor of Clinical Medicine Johns Hopkins University. Illustrated with Twenty-Eight Engravings Cloth 220 pages, price \$2.50, St. Louis C. V. Mosby Company, 1912.

Arteriosclerosis is one of the few subjects of internal medicine which lately has received more than its share of study and debate at the hands of the student of medicine and general practitioner. It is one of the most widely present diseases we have to contend with and is an accompaniment to every social state of life in this country. Its treatment is admitted by all to be one of the difficult, if not futile problems we have before us today and this work goes into all phases of the trouble with insight only born of much study and labor. The importance of arteriosclerosis on longevity and as affecting life insurance risks is well understood by men having those matters to consider and this work considers those phases of the disease. There is a chapter on blood-pressure and pressure instruments and their practical application to the patient. This work will be found extremely useful to the general practitioner and internist.

---

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### FRACTURES.

The advice of some able surgeons that all fractures of long bones should be operated on is not shared by W. O. Sherman, Pittsburgh (Journal A. M. A., May 25). He says that no fracture should be compounded if it can be properly reduced and kept in reduction. During the past year it has been his routine practice, however, to use the Lane bone plates with screws in all fractures in which he was unable to restore and hold the fragments to their proper relations without it. He prefers to operate after the first week or ten days, as the operation can then be done with more ease and less hemorrhage, etc., than at an earlier stage. He uses the X-ray both for diagnosis and for observing results, but cautions against putting too much confidence in it, as it is often somewhat misleading. He gives the technic of the use of the operation, which is safe and easy in the majority of cases of simple fractures. His conclusions are that the fractures of long bones which cannot be successfully treated by means of splints, extension, etc., should be operated on. There is no evidence to justify the belief that the plates act as foreign bodies causing rarefying osteitis. There would be fewer cases of non-union if the faulty approximation were early enough recognized and corrected, but it is very necessary to have the proper operating equipment and use the most rigid technic. The periosteum should be preserved and the tissues handled delicately, but thoroughness must not be sacrificed to speed. The use of the plates obviates the uncertainty of continuous approximation during convalescence caused by restlessness, delirium or accident. In most cases it will be found necessary to remove the screws and plates, as they are sufficiently irritating to give rise to persistent small sinuses. With the advent of the stereoscopic X-ray plates the conditions can be better interpreted. The use of the steel bone plate will have to be in the hands of operators whose experience renders them reasonably safe and certain. The vanadium steel plates are far better than the old high carbon steels, and combine the maximum of strength with the minimum of volume. A self-tapping machine screw should be used instead of the wood screws formerly employed. The article is well illustrated.

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### INFANT FEEDING.

The principles of infant feeding as carried out by Finkelstein and used in the dispensaries of the United Jewish Charities, the Franklin Street Settlement and the Salvation Army in Detroit are described by D. J. Levy, Detroit (Journal A. M. A., June 22). They are: "(1) milk dilutions instead of percentage formulas, (2) long feeding-intervals; five feedings in twenty-four hours, four hours apart; (3) mixed carbohydrates; the addition of 10 gm. of flour and the use of oatmeal water as diluent; maltose dextrin as sugar; (4) limiting the total quantity of milk mixture to 1 liter (1 quart) a day; (5) the employment of broths, fruits and vegetables from the sixth month on." The least intelligent nurse can prepare a proper milk mixture, and the longer feeding intervals give rest to the mother and induce regular habits in the child. Breast nursing should never be given up until it is absolutely necessary. Levy thinks that when that occurs it is better to give one-half milk instead of one-third and increase to two-thirds milk after the first six months of life. The employment of broths and fruits and vegetables in the infant's diet is usually not sufficiently emphasized.

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# THE JOURNAL

of the



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### ABDOMINAL INFECTIONS

HORACE REED, M. D., OKLAHOMA CITY, OKLAHOMA.

Since the advent of modern surgery abdominal infections have been classed as surgical lesions. Time has demonstrated that, on the whole, this is the proper classification. As a rule, the diagnosis of such lesions offers few difficulties.

To determine when surgical interference is indicated, when the maximum benefit with the minimum of danger to the patient is to be counted upon, is a far more difficult task for the professional attendant. It is with this feature of abdominal infections that we wish to deal in our efforts here. No attempt will be made to offer a scientific contribution, but our deductions will be drawn from personal experience and observations.

It is convenient to divide our patients into two distinct classes: *First*, Those in which the disease is limited to certain definite structures or organs. In this we include appendicitis without its complications; salpingitis and other infections processes limited to the pelvis, and empyema of the gall bladder. *Second*, Those in which the process is not so limited, but is usually the result of one or the

other diseases of the first group which has been neglected, or in which the treatment was not properly or timely instituted.

In the first group the disease itself should be treated, while in the second the patient alone is to be considered. A misapplication of the well known principles governing the proper handling of the patients of the first group, particularly in simple appendicitis without extensive peritonitis and acute pelvic infection, will quickly throw them into the second classification.

Empyema of the gall bladder is not so prolific a source of general abdominal infection; while frequently met with usually undiagnosed positively except on the operating table, its spontaneous rupture is comparatively infrequent. The diagnosis of uncomplicated empyema of the gall bladder clearly speaks the indication for proper treatment to be instituted at once—cholecystectomy.

In order to be as emphatic in a statement concerning the proper treatment of appendicitis we are compelled to define certain terms which will definitely describe varying conditions with which we meet.

First—Appendicitis—unruptured appendix.

Second—Appendicitis—ruptured or gangrenous appendix, with the contaminated area definitely and sharply limited to the region of the appendix.

Third—Appendicitis—ruptured or gangrenous, with widespread contamination of the peritoneal cavity without evidence of localization.

In those cases which fall under the first and second conditions described, the diagnosis emphatically demands the immediate application of a proper treatment, namely, *operation*. In the first class no drainage will be required and the mortality should not exceed one-half of one per cent. In the second, drainage will be required and failure to cure will occur about four times as often as in the first class—a mortality of about two per cent.

The mortality, when not operated, in either class will necessarily have to be estimated as varying up to 20 per cent. If these statements are accepted, no further comment is necessary to establish a basis for our contention of the advantages of immediate operation over all other methods of handling such cases. If not operated, and if rigid regulation of the diet and the application of the ice bag be enforced, we admit that in a majority of the cases the inflammation will subside to be followed sooner or later, in most instances, by another attack. Only he who is wise enough to determine in which cases such a result will follow is alone justified in advising non-operative treatment for them.

But what about those coming under the other class, namely, ruptured or gangrenous appendix without definite limitation of

the infected area? Each of these is a patient whose life itself is in jeopardy, and a successful outcome will depend upon two important factors. These factors are, first, the patient, and second, the surgeon.

The surgeon who says that he always operates all his cases of appendicitis as soon as he sees them, be their condition whatever it may, certainly has an unjustifiable death rate. I care not how careful an operator or how dextrous he may be, he has failed to consider that a number of his victims have already had all but a lethal dose of toxins, and that a little additional trauma, with its new, fresh avenues for additional absorption, proved sufficient to overweigh the scales on the wrong side for the patient, and death has certainly resulted because that first important factor—the patient—was overlooked. These are surely the instances in which an operation may be successful, but in spite of which, yes, because of which, if you please, the patient dies.

Not long ago the writer heard a general practitioner of large experience unqualifiedly opposing surgery in appendicitis. He had treated quite a large number “medically” with 100 per cent recoveries. A less number had been submitted to operation, with a mortality of 100 per cent. Because these few were not actually dead as a result of his heroic doses of salts when he called in the surgeon, he naturally concluded, using his own logic, that surgery in each case was the cause of the demise. It was found on inquiry that he never called in the surgeon until desperation had driven him to it. Comment is unnecessary.

These are all surgical cases, but at this stage of the process inoperable, as a rule. Treatment, to be most successful, must have for its aim the building up of the patient's resistance and the sustaining of the vital processes. By the time the resistance has been built sufficiently strong to justify operative procedure it will be found that localization of the septic process has taken place, Operation is then clearly indicated.

Whereas, the mortality of the class of patients under consideration would be, and has been, close to 100 per cent when operated at once in the acute stage, with the carrying out of the newer and better plan of conservation, and waiting, it should not exceed at the most, 20 per cent.

#### *What about pelvic infection?*

Our experience and observation has thoroughly convinced us that they are never operable in the acute stages. This does not mean that large accumulations of pus will not need to be evacuated.

We refer to constructive and destructive surgery necessitated as a result of pelvic infections. The incising of an abscess while frequently required comes under neither of these designations. It



may appear strange that we so strongly insist on the immediate removal of an acutely inflamed appendix and just as strongly contend that it is wrong to remove a tube which is in the acute stage of inflammation. Experience has shown that the one is practically devoid of danger, while the other shows a disagreeably high mortality.

There are other very potent reasons why the acutely infected tube should not be removed, but a discussion of these is not pertinent to the object of this paper. Just why there should be such a high mortality incident to operative attack of acutely inflamed pelvic organs, we are unable to say, and we venture no assumption. The facts remain and for the present they are sufficient to justify our position.

*When should pelvic infections be approached surgically?*

Our answer is that excepting abscesses and possible bowel obstruction incident to such infection and its products, no operative procedure should be undertaken until the signs of active infection have disappeared. This statement may seem, and is, untimely, considering the fact that irrespective of the patient the disease does not call for operation in the acute stages. The mortality of pelvic infections treated medically, and by medical we mean postural, and all other details entering into a proper treatment, is remarkably low. The sequelae are not usually incompatible with life, and at any rate their surgical attention can be had at a period when the operation is practically free from danger.

To summarize, we will state our belief as follows: With few exceptions pelvic infections should not be subjected to surgical treatment in the acute stages, nor should operation be undertaken until after the patient's temperature has been normal for several days.

In abdominal infections arising from varied and more rare sources than those discussed, there can be no fixed rule by which the surgeon may be guided in any class of cases. Each patient will present a task in treatment peculiar to himself and his lesion, and the attendant will have to be governed accordingly.

From these few remarks we will draw our conclusions as follows:

1. Patients with abdominal infection may conveniently be divided into two distinct groups:

- 1st. Those in which the lesion is confined to some organ or definite area, and in which the indication for treatment is just as definite.
- 2nd. Those in which there is no distinct localization of infection and in which the indication for surgical intervention depends upon varied and extremely important factors.

2. Empyema of the gall bladder, appendicitis in which the appendix is unruptured; appendicitis with ruptured or gangrenous appendix, with the area of infection definitely limited to the region of the appendix—demand immediate operation irrespective of the patient's condition otherwise.

3. Surgery is contra-indicated, excepting certain few complications in acute pelvic infections. Surgery should practically be limited to the sequelae of these processes.

All these come under the first group.

4. All other infections are surgical, but the indication for operation must be determined from numerous factors, chief among which is the patient's power of resistance. These constitute the second group.

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## DISCUSSION

DR. T. M. ADERHOLD, El Reno.

In the paper which I read this morning were seventeen cases of appendicitis which were treated after the method which Doctor Reed has outlined.

I think the doctor has presented an excellent paper and I believe more is to be gained by waiting with the proper treatment than by risking an operation that is perilous, so far as the patient's life is concerned. Because if you lose one patient under an operation for appendicitis, that one patient may keep ten away from you, where operations are necessary to save their lives.

DR. J. A. WALKER, Shawnee.

The peculiar part about distinguishing when acute appendicitis ought to be operated upon has been a pretty big part of my work. I have told a patient or two that they would get over this attack of appendicitis. I have quit saying that. I tell them plainly that I don't know. Some case of appendicitis that you are going to have is going to be the last case of appendicitis the patient has, and no man can tell from the physical manifestations the condition of the appendix in a man's or woman's abdominal cavity. Just two weeks ago day before yesterday a preacher preached a sermon in Shawnee, went out to dinner with a family in town, ate his dinner, a heavy meal and went back home and called me up and asked me about acute indigestion, or his wife did, said he was suffering from some pain from his stomach—I couldn't get her to distinguish between stomach and belly, and I went over there and found him in much pain, temperature barely a hundred, and after examining his condition I told him he had appendicitis. He said if he had he had had it forty times. I said some of these times is going to be

your last. I can't tell and I don't believe any other man can tell by the symptoms the condition that you have. He said: "I preach sometimes out in the country and hold meetings and I am afraid I will go out there sometime and can't get to anybody who can take care of me." We started over to the hospital and he climbed three flights of stairs and he picked his room and undressed himself. I got ready and found an appendix that was pulled in two getting it out. So I don't tell anybody any more that I believe they will get over that attack. I tell them I don't know, and I don't believe any living man knows the condition of the appendix from feeling the abdomen. It has been my custom and our custom in Shawnee to operate cases of appendicitis when we meet them and where we meet them. We operate them for perforated appendix and get that abdomen open and drain it. Murphy said that pus under pressure is the pus that does harm. Take the pressure off of pus and let it out. Then you have done your patient very little harm and maybe saved his life.

I have had some experience with acute pelvic conditions, I don't know how it is in the majority of the cities, but in our experience, if we wait until acute pelvic conditions are over, the acute attack, we will not see the patient any more. They will suffer without coming to an operation for four or five years.

DOCTOR LANDRUM, Altus.

I am not a surgeon, but unavoidably I see cases of tonsilitis, infected gall bladder, infected appendix, swollen knee joints and ingrowing toe nails. I have to make diagnosis if I don't do anything else. But appendicitis is the most common form of grave infection we have, and frequently there is met a patient who asks what to do about it. I carry a little document, and say to him that seventy-five per cent of the first attacks recover; fifty per cent of the second attacks recover, and twenty-five per cent of the third attacks recover, and ten per cent of the fourth attacks recover, and then he begins to get a little nervous. If I can convince him that the best thing to do is to have the appendix removed during the initial stage of the first attack, or within the first twenty-four to thirty-six hours, he has a most excellent opportunity for relief, with a positive guarantee that he will never have another attack. It is difficult to make them see that. Most often the surgeon finds the patient has had a number of attacks, and quite frequently against his own judgment he operates on the patient in extremis with a very small margin in the patient's favor. There is a hat full of pus. Most of them recover. The gall bladder cases will not listen to you until they are satisfied that there is a hand full of stones. I speak of patients in the country. Even in these cases we can't afford to regard the safety of our own reputation, we have to take them in our hands and do our best to relieve the patients.

If we could have our choice we would let them alone and let them die if they have neglected themselves to that extent, but no true physician can afford to do that. That is the attitude I take.

DR. REED: (Closing.)

I want to thank the gentlemen for their discussion. There is but very little more to be added. I would, however, like to get together with Doctor Walker on his remarks. I agree with him perfectly. It is simply a misunderstanding of our positions. I agree with him that no man can say what an acute appendicitis is going to do. I argue that way to my patients. Whenever an inflammation is limited to the appendix or to the immediate region of the appendix whether that be for one hour or four days, it makes no difference, I can give the patient at that time in my opinion what their chances of recovery will be, and I ask them to accept operation. If, however, in an acute appendicitis, say twelve hours old, or two days standing, there is no such limitation and particularly if the resistance of the patient is flagging, I prefer to wait, because then great damage has already been done and we will have to hope that no greater damage will be done and certainly not contribute to it ourselves. Something like a year ago I saw a patient who had had appendicitis for two days, and about six hours before I saw him he had had a rupture of the appendix. When I saw him he had a pulse above 150, board like abdomen and was tossing from one side of the bed to the other. It took half a grain of morphine every three hours, for about three doses to quiet him. I was asked to operate him. I was sent for for that purpose. I felt that the physician who sent for me because he had insisted so strongly that operation was the only thing that would save life was offended because I wouldn't do it. I placed that patient on morphine which splinted the bowels and the postural treatment succeeded in localizing the septic material in the lower part of the abdomen so that five days later I was able to evacuate a large quantity of pus and he is well today.

That brings up a matter which is not exactly scientific. It is a matter which is really unpleasant and yet we have to face it. It is the relation of the general practitioner to the surgeon when he brings his patient in. I believe a physician should do his duty to his patients. That he should state to him the facts without exaggeration, and when he starts to the city on the train with a case of appendicitis which may be localized when he starts, he cannot promise by the time he gets to the city it will be in the same condition. Too many of them start under these conditions to the city, we will say, with the absolute understanding that operation is necessary, and the moment they land in the hospital, on the strength of which strong statement, the patient comes, and if the surgeon finds out that in his opinion operation is not even feasible the phy-



sician is afraid the patient will lose confidence in him, because he has made a statement which he will now be compelled to take back, and that the surgeon, after all, knew more about the case than the physician does. He should be guarded in these statements, particularly when it comes to acute infections of the abdomen, not to make them too strong. You can only make your statement concerning the patient's condition at a given moment. That is particularly true of appendicitis and I make that statement to practically all my cases of acute appendicitis. I know what to expect at this moment. In an hour the condition may be different.

In regard to the number of hours after which an operation is not feasible. Twenty-four hours is what we usually say, for the ordinary attack of appendicitis, after twenty-four hours—it is best to watch and wait. That is only relatively true. Some cases are worse at ten hours than others at forty. That is only a general average the doctor has struck. On the whole it is true. I thank you again, gentlemen, for your discussion.

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### PUERPERAL ECLAMPSIA --- CAUSATION AND TREATMENT.

DR. R. W. WILLIAMS, ANADARKO, OKLA.

Before taking up the cause of eclampsia, may we consider briefly the nature of the disease, so that we may the more intelligently discuss the etiological and therapeutical phases of this rather obscure malady.

Eclampsia, in it's typical form, is an acute toxic convulsive attack of limited duration, characterized by tonic and clonic muscular contractions, to be followed by unconsciousness and coma.

In general, it may be said, eclampsia occurs once in 500 cases of pregnancy. I believe this is far too low an estimate, as it occurs in the practice of the average practitioner. In my own obstetrical practice, covering a period of six years, with a reasonable estimate of 150 cases of pregnancy, I have had two cases. One of my colleagues, during the past ten years, with an estimate of 200 pregnancies, has seen six cases. Many of my hearers will substantiate my statement, therefore, when I say I believe eclampsia will occur once in 100 cases.

Primiparae, it is generally conceded, are the most frequent victims of this toxemia.

A small percentage of women are affected more than once in a series of pregnancies.

Eclampsia occurs usually during the latter half and most frequently toward the end of pregnancy; though cases have been observed as early as the third month. As regards time, convulsions occur antepartum, intrapartum and postpartum, and are most frequent and serious in the order mentioned.

The eclamptic seizures are usually ushered in by a prodromata of symptoms, but sometimes come on without warning, and may occur during the restful hours of the night. In partial contradiction to this last statement, may we say, that if all cases could be under the watchful care of a conscientious practitioner during the pre-eclamptic stage, it is most certain that a chain of symptoms would be observed, such as headache, urinary difficulties, as progressive diminution of urine and urea output, with albumin and casts (possibly); general physical and mental lassitude; anorexia; sometimes nausea and vomiting; possibly disturbed vision, ringing in the ears; oedema of extremities, etc. The pre-eclamptic symptoms may present themselves one by one, or a number of all may be present at one time, when a case comes first under observation.

The convulsion usually begins with twitching of the muscles of the eyes and face, twisting the face to one side; then the arms, legs and entire body are thrown into a tonic rigidity, eyes staring, and fixed, pupils at first contracted, later to become widely dilated; soon cyanosis sets in from respiratory muscular spasm and respiration ceases. Frothing at the mouth, often colored by blood from injury to the tongue, loss of sensation and consciousness are complete. This is followed by stertorous breathing and coma. The coma will last for hours after cessation of convulsions.

There has been much discussion and theorizing as to the cause of eclampsia, and during the second half of the 19th century, many views were advanced to explain its phenomena. It is not my purpose at this time to go into the minutiae of these various theories and views, but I do wish to make mention of a few of the reasonable theories, thereby opening up to you a fertile subject for discussion.

In the early forties the frequency of albuminuria in eclampsia was pointed out and the belief gradually gained ground that disturbed renal function, associated with imperfect elimination of poisonous material caused the disease. It was held by some that urea was the noxious element.

In 1851 Frierichs brought forth the uremic origin of eclampsia, pointing out the resemblance between uremic and eclamptic convulsions. But this theory has been abandoned for reasons which at once would be pertinent to the observing clinician, viz.: that in the great majority of cases, there has been no previous renal disease; that the renal changes which may be found are not constant and definite, but are very variable and often very slight; that the albuminuria frequently appears after the convulsions begin; and that the clinical phenomena of eclampsia are not often found in cases of chronic Bright's disease.

From time to time anemia and oedema of the brain have been accorded first place in the causation of eclampsia

In 1882 it was stated by Halbertsma that eclampsia is due to the influence of increased intra-abdominal pressure, caused by the growing pregnant uterus interfering primarily with the ureters, and secondarily with the kidneys. Ries also holds that compression of the ureters by the presenting part of the fetus is the most important factor. It probably must be admitted that ureteric compression may in some cases be a factor in the determination of an eclamptic seizure, but there is no proof that it is the essential cause of the seizure in most cases.

Not until 1886, was the idea of a circulating poison in the blood, being the cause of eclampsia, advanced. This poison was at that time supposed to be acetone, which was credited with causing irritation of the kidneys and liver, decomposing blood and causing convulsions and coma. But it has been determined that acetone is a result of eclampsia, not a cause, and is due to blood dissolution, and anesthesia. It may be formed from biliary products not excreted.

As to the part played by the living fetus, various authorities hold that it may be a source of the poison in eclampsia, that the convulsions do cease when the fetus dies (not invariable, however), and that albuminuria and oedema may also disappear at the same time. There may, however, be no such disappearance; furthermore, cases are described in which eclamptic convulsions have ceased in pregnancy, the fetus remaining alive and the woman continuing normally afterward to full term.

During the last ten years, the view has gradually gained ground that the most important factor in the production of eclampsia is an acute intoxication, the poisons resulting from various sources within the maternal and fetal organisms. These poisons may be derived from the effete products of metabolism throughout the body, a marked increase of these poisons necessarily occurring during pregnancy. In the alimentary canal they may be taken in as food and drink and may enter from the bile-passages, but are mainly formed in the process of digestion and by intestinal decomposition.

I believe we are justified in making the assertion, that eclampsia is due to the circulation in the blood of some *specific* toxic substance, yet unidentified, which causes possibly thrombosis of the smaller vessels of the internal viscera, most characteristic in the liver, followed by degeneration and necrotic processes.

Lesions are almost constant in the liver, and are also found in the kidneys, myocardium, spleen, thyroid and lungs. These degenerative changes so interfere with the metabolic functions of these organs as to establish a cycle of toxemia which sooner or later reaches the limit of toleration, by that particular nervous system and as a result, a convulsive seizure occurs. It would certainly seem



as above intimated, that there is a definite, specific toxin, which in all probability acts upon certain centers of the brain or cord, or both, for as we know, symptoms of this toxemia are as definitely pronounced as are those of tetanus, or even strychnia poisoning, where we are certain there is a special toxin or poison at work. Also, fetal metabolism must play a very important role in the production of this special toxin, as well as increasing the work of the maternal organism in the elimination of its excretory products, since clinically we see, that when the ovum is removed or the circulation between mother and ovum is interfered with, as in the case of the death of the fetus, the convulsions are very apt to cease, though not invariably. The unstable condition of the nervous system in most cases of pregnancy, make it unusually susceptible to the toxic irritation. Some constitutions seem to be particularly susceptible to eclampsia, yet it is doubtful whether individuals from neurotic families are more liable to true eclampsia than others, except in so far as they would yield sooner to a lesser degree of toxicity.

Whatever the underlying, predisposing condition in the individual, the exciting cause seems to be in the impregnation of the ovule. With the growth of the ovum, there is a marked change in the metabolic processes of the body, increased activity of various organs, especially the liver. This occurs in all gravida and is physiological. In any given case these physiologic changes passing beyond a certain point become pathologic. The liver, governing in a great measure the process of metabolism, is usually an over-worked organ, and in pregnancy has an added burden, not only the increased metabolism on the part of the mother, but the care for the nutrition and waste of fetus as well. It is reasonable to presume, therefore, that this excessive stimulation can and does lead to structural changes, seriously impairing the hepatic function. As a result, we have perverted metabolic products which constitute the basis of the toxemia.

After reviewing the various theories that have been advanced to explain eclampsia, we find that all sustain the assumption that the disease is the result of an intoxication from disturbance of the metabolism in consequence of pregnancy. The exact nature of the toxin may still be a mystery, but the struggle against the disease is no longer a hopeless task.

The treatment of today must have reference to the pre-eclamptic stage, and to eclampsia per se—in other words, prophylactic and curative. The former is along dietetic, hygienic and sometimes medical lines. When taken in time, with the entire co-operation of the patient, wonderful results may be accomplished with diet, hygiene, and strict attention to elimination; also rest. At times, rest in bed is imperative. Enjoin your patients to take complete



physical rest in bed, for a longer or shorter period of time, when symptoms appear.

Pregnant women eat too freely of difficultly digested food; too much meat and pastry for instance. Make milk, eggs, fish, broths, plenty of coarse bread and butter with vegetables and fruit the basis of dietary.

Elimination must be kept good and this can usually be accomplished by the abundant use of water. Frequent bathing is the most essential adjunct to maintaining a healthy elimination. Copious quantities of water as a beverage, and an occasional high colonic flushing will, in many cases, aid greatly in overcoming the too frequent tendency to constipation.

Along this same line, watch the blood pressure. If a woman becomes troubled with congestive headaches, a headache which is unusual, as she will sometimes say, and if she is full blooded, it is very probable her blood pressure is leaving its normal limit. If this is determined to be the case, and you cannot reduce the pressure by the free use of salines and other usual ways, bleed her. Remove a pint of blood or more. You will not only relieve her symptoms, but you will greatly reduce her liability to convulsions.

Examine the urine at least once in two or four weeks. We are not rendering our patients conscientious service until we do these things. It is true we too often do not have the opportunity to so guard the pregnant woman, but it is up to us to educate the public, that they will, soon after discovery of conception, consult their physician and keep in touch with him to a reasonable extent.

Once the convulsions occur, are we going to immediately institute surgical measures? If the woman is in the hospital, or is accessible to a hospital, and if she is at full term, operative procedures would most certainly be in place. Even under ordinary conditions, if proper assistance can be obtained in the home, the same efforts may be made. But many of these cases are beyond our control as regards such environments, for various reasons, and these conditions are those of which I wish to speak.

Primarily, we should endeavor to control the convulsions; for which purpose we have several remedies at our command. Anesthetics, preferably ether, should be used not to control the convulsions, because this interferes with the intake of oxygen, which the patient is needing. Rather use the anesthetic to prevent succeeding seizures. We may also use morphine combined with atropin, for I believe these drugs diminish the convulsive attacks and lessen the vascular pressure, thus relieving the heart strain.

Chloral is used by many good men, but is not necessary at this time, if morphine is used. These drugs should be used more

to modify than to control the convulsions, while waiting for the less active remedies and measures to take effect.

Viratrum Viridi, without doubt the most reliable of all remedies in the so-called expectant treatment, is supposed to act by powerfully depressing the circulation, thereby bleeding the woman into her own vessels; it is also supposed to reduce the spasm of the renal vessels, causing an increased flow of urine and encouraging perspiration by relieving spasm of the capillaries.

But I believe these results may be more effectively accomplished by blood-letting, and it would seem more rational. This may be done, it is true, by emptying the uterus; also by dividing the median basilic. The choice of operation is to be determined by the time of occurrence of the first convulsion; if after the sixth month and before the eighth, I would strongly urge venesection; as there is a possibility of obtaining a viable child. During the ninth month, if the patient is seen soon enough, bleed, and allow ease to go to full term. I do not believe we are risking any more than when we try to induce labor by artificial means.

Blood-letting and indeed infusion of salt solution is rational treatment, because, what are you doing? You are removing a good quantity of the toxins, and are reducing greatly the concentration of what is left: you are also promoting diuresis diaphoresis, etc., and what is most important in many of these cases you are stimulating the heart and vaso-motor center, which is directly the opposite to the ultimate effect of veratrum.

Of course, after the convulsions cease, if it is determined that the fetus is dead, we must clean out the uterus as soon as possible, although usually there is no immediate danger to the mother incurred by waiting hours or even several days.

It is also worthy of note, that while veratrum is supposed to control the convulsions by depressing the circulation, the venesection-infusion treatment, although temporarily reducing arterial pressure, finally stimulates the circulation, thereby raising the blood-pressure; yet as demonstrated in innumerable instances the convulsions cease.

After the convulsions have ceased, to guard against their recurrence, hot baths, diaphoretics, and hydragogue cathartics are unquestionably valuable.

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## LYMPHATIC DISEASES OF CHILDREN

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To write this paper, and conform to the classification of lymphatic diseases, as usually given in textbooks of Pediatrics, and General Practice, there would be but few distinctly lymphatic diseases under consideration, and these, except one, not common in

our practice. Lymphadenitis, the most common, lymphangitis, lymphangiectasis, lymphangioma, status lymphaticus or lymphatism and Hodgkin's disease, being the list as usually given.

In these days of increased knowledge of the function of the lymphatic system, and in our use of serums, bacterins and vaccines we must revise our classification, and include as a scientific classification, infectious diseases and many others, of the nutrition and blood disturbances.

Authorities are very indefinite on the theories that will help us understand the functioning of the lymphatic system in its relation to diseases. As to the embryologic origin, we see first, that the leucocytes arise in the tissues, exterior to the blood vessels.

The three theories as to the origin of the lymphatic system will show you that we have no certain ground on which to base our reasoning. We can well exclaim, "Light, more light on the lymphatic system and functions."

Sabin's observations led him to describe the origin, as two small sacs or hearts of lymph, arising one on each side, as outgrowths from near the junction of the jugular and subclavian veins, the opening of the sac into the veins being guarded by a valve due to the oblique direction taken by the outgrowth. Anastomotic branches radiating in all directions from each lymph sac, or heart, ultimately form a network subcutaneously, over the anterior half of the body.

A backward branch following the line of the vagi, meeting a left branch, develops into the thoracic duct, or dividing, just before it reaches the aorta, into two thoracic ducts.

Similarly, a second pair of hearts of lymph develops at the junction of sciatic and cardinal veins. As development proceeds lymph hearts become nodes, and plexuses arise, as well as valves and outgrowths from the thoracic ducts invade the mesentery and other organs follow the arteries, but the superficial branches follow veins. This, I think, explains the difference in subcutaneous and deeper injections into tissues. The outer absorb more quickly.

Lewis's theory has other origins for the lymphatics, as outgrowths from the veins from the same centers as Sala, but also, near the root of the mammary exterior vein, and near the azygos gastric and mesenteric veins. These outgrowths eventually unite with the jugular and femoral outgrowth to form a continuous system of lymphatics. This does not seem a logical origin to me.

Others deny the primary connection of the lymphatics with the veins and maintain that the fusion of spaces in the tissues known as the mesenchyme or those structures whose cells are scattered in a matrix of non-cellular material like connective tissue, bone cartilage blood and lymph. These spaces develop most rapidly when associated with regressive veins, and since the veins of the left side un-



dergo the most regression, we can see why the thoracic duct is on the left side.

Since the spleen (Mall) has a structure comparable to that of lymph nodes, the pulp being divided into trabeculae into areas termed pulp cords, it falls into the same category of organs as the lymph and haemolymph nodes.

Considering its function with the leucocytes, we can reasonably class diseases of the spleen, as lymphatic diseases. Now let us turn for a moment to the physiologies with their description: The lymphatic capillaries begin most commonly either (a) in closely meshed networks, or (b) in irregular lacunar spaces between the various structures, of which the different organs are composed.

A physiology of 1911 says in referring to the many hypotheses: "It cannot be said that we possess much positive information as to the normal function of the leucocytes, though we give Ehrlich as our best authority. He says leucocytes and lymphocytes may have a common origin or may represent really different types in origin and functional activity," which latter I accept as my theory.

One tells us lymph is formed from blood plasma by the combined action of the physical process of filtration, diffusion and osmosis. Others say in addition to filtration and diffusion it is necessary to assume an active secretory process on the part of the endothelial cells composing the capillary walls. Asher says, the amount of lymph is controlled by the activity of the tissue elements, a product of the activity of the tissues as a secretion in fact of the working cells.

Leucocytes being formed in the lymphadenoid tissue of the spleen lymph glands, intestinal tract, bone marrow and blood, and since all tissues are bathed in lymph, why not conclude that the lymphatic system supplies the tissues with pabulum and carries away waste matter like roots and leaves of a plant?

The products of the ductless glands are conveyed to the blood by the lymph. The lymph movement is from the tissues to the veins, maintained by the difference in pressure between the lymphatic origin in the tissues and in the larger lymphatic vessels. Did you ever notice the apparent fatness in a patient who had recently taken an osteopathic course? This vis-a-tergo is changed when serum injections are introduced directly into the tissues. In childhood and infancy, swelling and hyperplasia of the lymphoid tissue, is characteristic, because of the processes of growth and nutrition being most active the lymphatic system, like a system of drainage pipes after a flood, must be full overstocked, and ready for few weeks' emergency.

Because of this overstocked lymphatic system, catarrhal and mucoid conditions are prominent symptoms of children's diseases.



The degree of lymph node enlargement is so often misinterpreted— infectious, often puzzling. The most valuable part of a doctor's knowledge are the deductions and conclusions he is able to make from his own knowledge and experience as well as from that of others.

It is true that the weakest part of most physician's medical education is biologic and physiologic chemistry. The peculiar susceptibility of children to infectious diseases as well as the activity of lymphatic system, should classify all infectious diseases of children as lymphatic diseases.

The process of digestion should stop with absorption by the lacteals, for the lacteals absorb the chyle, at this stage, and the lymphatic system is intermediate between digestion and blood circulation.

Disordered nutrition such as marasmus and obesity should be classed as lymphatic diseases. If injection of defibrinated blood or serum, which is the lymph part of the blood has cured pernicious anemia and articular rheumatism, then those diseases could reasonably be classed as lymphatic diseases on account of leucocytic changes.

Why adenoid vegetations being an overgrowth of lymphoid tissue should be classed under digestive diseases as does Holt, when the tissue affected is all lymphatic is not clear to me. Infants fed too exclusively on carbohydrates grow very fat—and an excess of fat though boasted of by the laity, is by the physician regarded as a disease, the opposite of marasmus.

If we could derive some serum from the overfat people, thus diminishing their fat, to increase the activity of the lymph system in the lean to accumulate and store fat, what a golden medical discovery it would be for the finder. Fat cells are found free in the lymph system following digestion, therefore, in the overfat we should deduct from the diet the carbohydrates, and by exercise, increasing waste of tissue, deplete the lymphatic system. A blood test in the obese cases, showing anaemia, calls for iodide of iron and nuclein in the most effective blood tonics we have for children.

In marasmus or malnutrition, a condition fatal to so many infants, I think some are born with an imperfect digestive or lymphatic system—defined as infantile atrophy, or wasting, we find no lymph bathing the tissues—and in autopsies so few lesions to account for the trouble. I should like to try a system of nutrient baths, and oil inunctions on a series of these cases.

The fatty liver, showing the lymphatic system did not distribute fat cells, as well as degeneration of the liver tissue itself—the enlargement of the solitary follicles of the colon, and small intestines and Peyer's patches, and of mesenteric glands shows the absorp-

tive system at fault. Most cases of marasmus are under skilled care too late to get results and even in hospitals, but 40 per cent recover.

We have not used any serum treatment in the treatment of marasmus. When the serum from broiled beef is fed even to a two months' old starving infant, it does not take an acute observer to notice the infant's relish. The academy of medicine reported a case of uncontrollable vomiting cured by two injections of 12 c. c. and 15 c. c. twice a day of serum from a healthy pregnant woman. Similarly, a marasmic child could be helped by serum treatment.

In the International Congress of Medicine of 1909 the infectious nature of rickets was believed to be caused by the same germ as is osteomalacia, a micro-organism (*Diplococcus osteo.*) being discovered identical, resembling *staphylococcus piogenes albus*.

Wright's vaccine prepared from cultures of the micro organism has cured cases of Rickets, improvement following first injection. In scarlet fever, as in other infectious diseases, the physicians glory in prophylaxis for the good of mankind is increased by the security of immunity from scarlet fever. Grabitchewsky, a Russian, in observations with seven hundred children, established immunity by this method: Preparing a killed bacterin of streptococcus isolated from a scarlet fever patient and sterilized by heat to 60 degrees C, plus .5 c. c. pherol. They claim that three doses of the vaccine, often two, established immunity. Chicago physicians are reporting a similar success.

We are learning more about the incubation period of disease. In measles before the Koplik spots appear there is a distinct reduction of the total number of leucocytes, and absolute leucopenia, and often enlargement of the lymph nodes and glands before the eruption.

We are all familiar with the sequella of measles, in which enlarged glands have become chronic. I think serum treatment in earlier stages would remove this. In the treatment of summer diarrhoea, if we classify the four types of acute, nervous diarrhoea, fermentive and dysentery, acute intestinal indigestion, deficient secretion causing irritative diarrhoea—these two types responding promptly to calomel, oil, sterile water, colon-irrigation, and barley water instead of milk. Then there are the fermentive diarrhoeas, in which lionig lactic acid bacilli, are a specific, being given in ripened fat free milk, or buttermilk, after twenty-four hours' preliminary treatment as in the other types.

The infectious diarrhoea, treated as above, if resistant to such treatment will respond to anti-dysenteric serum. Dysentery of children, responds similarly to anti-dysenteric serum, the dysentery being due to the Shiga bacillus—20 c. c. and later 10 c. c.—2 or 3 necessary to cure.

Wright of the United States Navy emphasizes the fact that failure may result if the blood with its opsonins is not brought into the area of the infection. He recommends rubefacients, massage and heat, to cause the hyperaemia. As in pus cases, by evacuating the pus and allowing an influx of highly opsonized lymph to the focus of infection we hasten resolution. When Wright said in 1904, that the "protective substances which were involved in the cure of disease and that were present in considerable quantities in the blood were to be regarded as produced by internal secretions," but he did not know where they are produced.

With all our talk of the leucocytes ingesting and destroying invading bacteria, we must credit the lymphatic system as the functioning system for that is its function.

Some of us have phagocytosis and opsonins, without external assistance, and some of us must have nature assisted.

All inflammations are considered a reactionary effort of defense against bacterial invasion. There are few septicemias not secondary to a primary local infection.

I cannot close without reference to that disease most prominent before us, which received so much special study of late. The exudative liquids of the body, such as the pericardial liquid, the synovial fluids, the aqueous humor and cerebro-spinal fluid varies greatly in composition, and all inflammations showing a change or increase in these fluids should be classed under lymphatic diseases.

The pathology of cerebro-spinal meningitis seems to classify it at once as a lymphatic disease, and the treatment, also, with lumbar puncture and removal of cerebro-spinal fluid, and serum injection is another reason for classifying it as an infective lymphatic disease, differentiating from lobar pneumonia, anterior poliomyelitis, otitis media, gastro-intestinal intoxication, and typhoid fever, pneumonia, and tubercular varieties and the influenza type.

It is specially a disease of children, the infection often traveling from the pharyngeal tonsil, through the sphenoid along lymph or blood vessels into base of brain, showing a predilection for the inner meninges, and an exudate more or less purulent, this exudate pressing on nerve roots being the cause of the local paralysis. The most characteristic symptoms of projectile vomiting, convulsions, fever, rigidity of muscles of back and neck, photophobia and headache, lead us within a few hours to make the lumbar puncture finding a more or less turbid fluid, though sometimes clear, with more or less polynuclear leucocytes.

"The value of an injection of killed typhoid bacilli in immunizing armies is now generally recognized by most civilized nations, but its use by individuals about to visit regions infected with typhoid fever is a novelty."



Taft's eulogy on the medical profession having accomplished so much in prevention of typhoid, is familiar to all.

These discussions under the subject I have given it, is to bring about, I hope, some facts more helpful to all of us in recognizing the function of the lymphatics, not only in biologic methods, but in internal medicine, and the results attained in prophylactic methods in smallpox, typhoid, diphtheria, alone, justify all of us in making a closer study of the use of vaccines, bacterins and serums.

Touching on the most common of lymphatic diseases as classified in textbooks, lymphadenitis. I think it is our routine duty, when called to treat a child with a bronchial, lung or throat trouble to examine closely, by touch, not by sight, that we may find the amount of adenoid tissue in the throat. The laity are now so well versed in this condition, through descriptions in the magazine, that many diagnose the condition by external symptoms.

A few week's treatment with iodide of iron and dieting will tell us if medicine will accomplish anything in reduction, and when we are satisfied that it cannot be done, operation should be urged, no difference what the age of the patient is.

Because I find so many theories when I go into the research concerning the lymphatics, is my reason for writing this paper.

DR. PUCKETT:

I had one case out in our section of the country that gave some concern, or was interesting and still is. It was a child about nine months old and the first time I called to see it the child was plump, but as white as a wax cast. A while before that it had what they called membranous croup and they gave it, among other things, a good deal of fever powders and they had about three grains of aspirin to the powder and they cut that in about four or five doses and gave it, and I hardly knew what I had and then I began to think they gave it too much aspirin for the child was plump, but as white as if it had no blood at all. And listening to Dr. Sanger's paper I thought I might get some good out of her suggestions along this line, using her methods. It does not seem like anything I have been doing is doing any good, and there are things in the paper I have not thought of before, and if she has any further suggestions along this line I would like to hear them.

DR. SANGER:

It is not much good to talk about a case unless you can see it. but it would seem to me, without having seen the case, it would seem a result from very low resistance, together with the effects of the aspirin. It looks like a similar treatment as for anemia would be good



## THE PHYSICIAN AS A TEACHER OF SEXUAL HYGIENE

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At the outset I desire to disclaim any new discovery concerning venereal disease. I have not found a universal panacea for the social plague, nor do I advance any new theory as to its cause or continuance. My purpose at this time is simply to call your attention to what, in my judgment, is one of our most important duties, that of acting as teachers of sexual hygiene. It is my desire, if possible, to enlist not only your moral support, but your active service in this duty which too long we have failed to accept, but which we dare not repudiate. I shall try to state only facts—not abstract theories. There are enough principles established on which we may unite. Let us not waste time and energy and golden opportunities for valuable service by engaging in polemic discussion.

Many of the most important medical problems are social problems and must be solved largely by men with training in medical science and public health work. Hence, we need to have a knowledge of social science. The medical knowledge in the abstract we already have. Our failure in the past has been to correlate the two, and to be active in applying the remedy to the present conditions. We have been too much concerned with merely making a living. We have doctored *cases* rather than *people*, have feared to hurt our practice by rising in our manhood to tell the truth and to teach men so. We have shielded guilty husbands and have allowed them to contaminate innocent wives and children. We have failed to emphasize the universal truth in matters of sex as in all matters of life. "Whatever a man soweth, that shall he also reap." Rather we have tried to hide the fact that only too often the man's wife and children and associates are condemned to reap with him.

The people come to us asking for information—"Doctor, to whom shall we go? Thou hast the words of a cleanly life." Do we speak those words? Do we tell how always the sowing of "wild oats" will be followed by a crop of dire disaster? Do we tell them that the reproductive system was not meant to be a mere instrument of sensuality, that over and above the physical there are the higher powers of reason and conscience and self control, and that these divinely implanted powers can be trained to dominate the lower?

The physician who thinks only of cures for venereal disease is years behind the time. We have had for generations mercury and iodide of potash, potassium permanganate and the silver preparations, and now we have salvarsan and vaccine. We have known for years the contagiousness of the venereal diseases, the fearful suffering, the damage and the deaths which they have caused. Pre-

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vention of these is to be our ideal in the future—the highest ideal of medical attainment. The great need is not for new curative drugs. The need is for a careful study by us of present conditions and problems. What we need to fit us as teachers of sexual hygiene is not only scientific knowledge, but honest convictions, a clarified moral sense, the spirit of consecration and courage that will make us tell the *truth* when our patients come to us for information. We must have that singleness of purpose and that cleanliness of life which alone will give weight to our words. What we need—what the world needs today, is a potent moral antitoxin to neutralize the evil of licentiousness, of low moral standards, of loose living, of unbridled passion. We need to do our share to raise *one* standard of morality—both for men and women. Our duty is to train a new conscience into the *men* of America. Why? Because for every scarlet woman there are a hundred scarlet men! And regulation and inspection and certification of prostitutes will never eliminate venereal disease. Too long have we been putting the cart before the horse. It is time to right about face, and attack the problem from the *man-side*.

The prevention of venereal disease by means of the regulation of prostitution has failed. It has been tried in all the chief cities of Europe, where a strong police power and an autocratic government would seem to give all promise of success. And it has failed. And if there, how can we expect it to succeed here in America with a more independent people, with the prevalence of graft in our police departments and in politics, with the mad rush for wealth, with the close relations which inevitably exist between prostitution, the saloons and the gambling houses? It has failed. It will always fail—and it ought to fail. Why? In the first place, the licensing, segregation, attempted regulation and compulsory examinations of prostitutes are virtually a public recognition of the pretended “sexual necessity”—the latter teaching as false as the Father of Lies himself. Secondly, the inevitable system of fines growing out of attempted regulation makes every citizen a party to vice, and a partaker of the profits of prostitution. It makes every citizen a participant in the murder annually of thousands of women and girls (and men). Further than this, periodical examinations of prostitutes are a cruel farce which reflects upon the intelligence, the scientific knowledge and the moral sensibilities of the physicians concerned. No physician can say definitely whether or not a certain woman will convey infection—and if he could—he cannot know whether from the next coitus she will not carry infection to a dozen or to fifty men. Compulsory public examinations have had only two results: They have increased the number of clandestine prostitutes, they have fostered in boys and young men a false sense of security and have thus vastly increased the number of cases of venereal disease.

Teachers, physicians and intelligent people generally are coming to realize that legislative enactment and municipal ordinances, that salvarsan and silver alone will never cure the social evil. In the end all progress and all reform—all social improvement must depend on education. So here it is, education which will prove the only form of preventive worthy the name.

We as physicians have a peculiar and special responsibility to act as leaders, counsellors and guides, as teachers of sexual hygiene. One of our first duties as medical students was the study of embryology and of physiology, sciences which teach how tremendous the power which functions have to change the very form and substance of the body—and on the other hand, how pathological changes operate to alter functions. We know, or ought to know, that in a large sense the reproductive powers are primary—essential—fundamental—and they are such by physical necessity as well as by divine decree. We know that the sexual glands constitute literally the very fountain of life. We know the power of the laws of heredity and how vital it is that the race cultivate health and strength of body. These latter are of first importance, as the basis for sound minds, and worthy work that shall be valuable to civilization, to culture, to spiritual as well as to material progress. We can never build up a great civilization if we use in the foundation men and women whose bodies are weakened by vice and disease, whose minds are impure, whose ideals are low, whose lives are vile, whose aims are directed only to the gratification of the sensual appetite. What America needs today is health—physical and sexual health, clean morals, a new vision of the sanctity of marriage and the marriage bed, of the sacredness and the blessed privileges of the home, of the right of children to clean and wholesome parentage. Unless we teach these truths we shall be false to the honor of our profession, and unworthy the confidence of the people. The issue is clearly drawn. Our duty is to help make scientific knowledge and facts available to all the people.

We know that gonorrhoea causes more than one-third of the blindness existing today, and that syphalitic keratitis causes an additional ten per cent of cases. Are we telling the people so? We know that tabes, parietic dementia and a host of nervous and degenerative changes are caused by syphilis. Are we teaching the people these facts? As physicians we know how often sexual vice is the cause of domestic unhappiness, of wifely martyrdom, of divorce. Are we preaching self control, continence, and a single standard of morality? Or, knowing how many innocent persons contract venereal disease, do we shield the guilty husbands and risk almost certain contamination of trusting wives and innocent children? How many of us would have the honesty and the courage to report our cases of venereal disease, if our laws should re-



quire their registration? They are the most deadly of the infections and it is only a question of time when the people will demand to know.

What are we doing to counteract the all too prevalent impression, monstrous in its falsehood, that gonorrhoea can be cured by coitus with a virgin? What share are we taking in teaching sexual hygiene? How many Mothers' Meetings have we addressed? How many of us are prepared to speak to classes of young men and young women, or of boys and girls on this fundamental subject? How many of us by time and effort spent in study have qualified ourselves to speak at teachers meetings on this subject, and on its relations with general education? Our public schools, even our normal schools and colleges, have failed to prepare teachers for this work—and yet the work must needs be done. How many of us are willing to sacrifice time and energy to help advocate and to educate a better parenthood? And how many of us who have tried to do our plain and simple duty in these semi-public ways have been accused by our brethren of being skillful advertisers, or sanctimonious and misguided and impractical visionaries?

Truly there is work for us to do. Some one must bear "the burden and the heat of the day." The giving of pills and powders and potions is not our only nor our chief duty. Our test of fitness will depend to a large extent on the part we play in developing the manhood and womanhood of this country. We have seen so much of the evil side of human sexuality that our moral sensibilities have become calloused to the reproach which the ravages of venereal diseases cast on our profession. We need to awaken from our lethargy, our indifference and blindness. We need to get a new vision of our duty, a broader view of our glorious opportunity in this field of work. We need a new ideal of social service.

Our newspapers are filled with advertisements which are calculated to stimulate indulgence in sexual vice. The universal attitude of secrecy maintained toward the reproductive functions and the feeling of shame associated with the so-called venereal diseases make the venereal patient especially, rich prey for the advertising fakir and the grafter. Our daily papers are literally teeming with their falsehoods and pernicious statements. The "manhood restorers," the "private diseases and blood poison quickly cured;" "cures in forty-eight hours;" the "female regulators," "private homes" and "babies adopted;" these all convey a false impression of the sexual function and thus incite too loose living and indulgence. One of our chief duties will be to instill into the editors and business managers of our newspapers a higher standard of newspaper ethics. We need to enlighten both them and the public as to the need of higher ideals of their responsibility to the public. Editors ought to be the guardians of the pub-



lie health and safety, teachers of morality. They need to know that in a large sense every medical advertisement implies their editorial sponsorship and recommendation, that every patent medicine advertisement encourages self diagnosis and self drugging with nostrums. Some of our editors apparently need to be told that most emissions are physiological and that to advertise cures for this condition is to add injury to insult by exposing untold numbers of boys and men to the mercenary and cruel machinations of the "specialist" vampires.

God speed the day when the members of our profession will waken to their responsibility in putting an end to this dishonest business. God speed the day when the advertisements appearing in our periodicals will really represent discrimination and honest recommendation rather than greed for advertising proceeds.

How can we help? By writing letters of remonstrance to editors, by discontinuing our subscriptions, by writing and having published wherever possible honest articles containing truthful, scientific information concerning matters of health and right living. How can we help? By joining one of the various societies of consecrated men and women, such as the American Society of Sanitary and Moral Prophylaxis, or the Oklahoma Society of Social and Moral Hygiene, wherein physicians and laymen are banded together for the education of the people and the cure of the evil resulting so largely from ignorance. We can help by keeping alive our membership in our County and State Medical Societies, and by united effort to advance the public good. We can help by knowing the literature on the subject of sexual hygiene so that on request, we can cite the proper books and pamphlets. There are many of these, some for physicians and teachers, some for parents, some for boys and girls, and still others for young men and young women. Some of them are very good, and some are positively harmful—and we ought here as elsewhere in our profession to know what to prescribe for our people.

By efficient treatment of individual cases of venereal disease we can help to prevent its transmission to others. By advocating hospital facilities for the proper care of venereal disease in our public hospitals we may ultimately supply a lack which at present constitutes a reproach to our profession. But in the last analysis, we can best help to stay the ravages of immorality and venereal disease by a proper education of the people.

We may be sure that the work will not be easy. We will be misunderstood and maligned and misquoted. That old, old hypocritical call will come to us: "Physician, heal thyself." The charlatans, the advertising fakirs, the paths, the practors and the believers in the various cults and isms will unite in charging us with insincerity and ulterior motives—but the work must needs be done.

We must clear our own ranks of the unqualified and the unethical. Too many men holding regular diplomas and state certificates are guilty of aiding in the demoralization of our people by their production of hundreds of unnecessary and criminal abortions. A still greater number of physicians are guilty of indiscriminate consultation and co-operation with such men—thus giving their criminal operations the semblance of respectability.

For a number of years past a creature in human form has been going up and down the streets of an Oklahoma town, urging the boys and the young men to sexual indulgence, and promising: "If the girls get into trouble boys, I'll help you out." When finally the flagrancy of his acts became unbearable, citizens and the County Medical Society united in securing a criminal indictment and in asking that his license be revoked. The evidence was clear and overwhelming, the man's activity had been notoriously bold, and yet otherwise respectable physicians were found who swore upon oath that they knew nothing derogatory to his character. Why? Because, to quote the words of one of them: "He's given me business, and I didn't want to testify against him." Citizens there were who perjured themselves in his defense, and justified themselves with the remark: "O, I know he's a dirty cuss but he's never hurt me and I don't want to testify against him." Lawyers were found to defend him, one of whom said to me: "O, I guess he's guilty all right, but I didn't want to lose the case." Loop-holes in the law were found for his escape from the criminal charge—but it is pleasant to record that an intelligent Board of Medical Examiners voted to a man that he was unfit to practice medicine in the State of Oklahoma. (Unfortunately our medical laws are such that he could go to another state for the practice of his vile business.)

Gentlemen, so long as evidence must be obtained from men to whom the oath is not a sacred thing, so long as it is the tendency to exclude from our juries the thinking men and the well informed, so long as lawyers care more to win cases than to see justice done and criminals punished, so long as there are men and women who prefer infanticide to fulfilling their divinely imposed responsibility of parenthood, so long as there are physicians who will murder unborn children for the sake of money, so long as the cloak of secrecy and shame and falsehood is thrown about the highest and divinest physical function, so long as children are brought up in ignorance of man's greatest mission in the world, efficient parenthood, so long will it be our duty to act as teachers of sexual hygiene.

## DISCUSSION.

DOCTOR BLAND, TULSA, OKLA.

Why wouldn't it be a good plan for all contagious and infectious diseases to be reported to the State Board of Health—that would solve the problem quickly. I am simply asking this as a suggestion. It is very good to teach; if to teach is right, to act is right, also.

DOCTOR HARBER, Seminole, Okla.

This venereal report—report of these cases, which has been discussed here several times today, and I have discussed in my own mind over it, and I doubt very seriously if it would not be a mistake to report these diseases for this reason I believe these people who have these diseases will hesitate and absolutely not come to a doctor, if they find their names are going to be reported. I believe that is one feature against that.

DOCTOR C. R. DAY, Oklahoma City:

I have talked on this subject today, but I want to emphasize one feature and that is, if we ever accomplish anything in the progress—in the way of progress in the amelioration of this condition, it must be through the means of education. The attempt of law to make these diseases reportable, without education in my opinion would be a serious mistake. If the public are educated to the seriousness of these conditions, then they will consult, not the advertising quack who guarantees a cure for fifteen, twenty, thirty or thirty-five dollars or whatever he can get, but they will consult those whom they realize know most about these conditions and the education on these matters is worth more than all other efforts that we may pursue, and this education must be general. The boys and girls and the young men and young women must be educated and at this time especially must the fathers be educated, for they are not posted on this subject at the present time, so education is the thing that is before us, and in my opinion is the most important of any procedure that we may adopt.

DOCTOR HATCHETT, El Reno:

I have not had anything to say because I don't think the chairman should discuss the questions, but I want to say that I am not a lawyer and don't know anything about law, but quite a number of years ago I had a lesson as to what non-forbidden communication means. I had a brother practitioner who doctored a man for gonorrhoea, and who never paid his bill, and the man in due course of time gave his wife the gonorrhoea and the physician doctored her and he didn't pay that bill, and in the meantime, this man who was very religious, became very much interested in a big meeting. He was the most righteous man in the neighborhood,



and the doctor made the remark: He said: "That hypocrite, taking so much interest in that meeting and he got the clap himself and gave it to his wife and he has never paid me his bill, even." He made that remark. Well, the parties came to town and consulted a lawyer. The woman was examined and I began to hear it whispered around that the doctor was going to be indicted by the grand jury. The doctor was a friend of mine, and as that was before the time of telephones, I hurried a runner out to his house and told him to come to town. In the mean time one of the grand jurors came to my office for treatment and asked me a hypothetical question,—he didn't think I was conversant with what was going on. I told him, "I know what you mean—I know what you men have done or are trying to do. Now, you ought to be ashamed of yourself. You go back and change that indictment. You go and indict a good citizen, a man who has been in this community—you are going to indict him on the ground of forbidden communication," and of course he was taken aback. I said, "I know what you are talking about." He said: "We have already done it, Doctor." "Well," I said, "Can you reconsider it?" He said he didn't know. He admitted—no names mentioned, but he admitted it and knew I knew it. I got the doctor into my office and told him they had indicted him, and he said: "All I said was that he is a hypocrite, and said he got the clap and communicated it to his wife, and that is all." I got the county attorney and talked to him that night, and I told him to drop this and got that indictment stopped against that doctor. I don't know whether any of you gentlemen have had such experiences or not, but you have to adjust the law, I wouldn't say for anything that any one had the clap, and that doctor didn't know, as I didn't know up to that time, the law regards that as a forbidden communication, and before you report such cases, you have to change the law.

This question, of course, involves education. It is a question of gradual education. Things don't take place in this world rapidly. They take place very slowly. This question is going to be solved like the liquor question. You see how it is being solved. You see every year of your life men are drinking less whiskey. Take the personnel of our profession and compare it with what it was twenty years ago, when I came to this country. See how many drinkers you had then and how many you have now. On account of prohibition? No. There is the mistake the brothers make—they want to do it all in a year or two. They cannot do that. Great forces don't move that way—moral forces don't move that way. Now, Moses gave the finest set of laws on the clap, that haven't been improved upon yet—he gave a fine rule of prophylaxis and you take the Jews today, and fewer have gonorrhoea or clap than any other race of people. The Jews have accomplished,—I believe and affirm as a truth, the Jews are the purest people in their domestic



relations. You don't find many Jews coming to you for the clap, I think you will find they are on the right road. We expect too much in too little time.

I am afraid we want to be too revolutionary. With text books on physiology and sanitary science they are going to be revolutionized, that is my opinion about it, we are getting better every day, we are getting more moral every day. **About** this question of clap we are profoundly ignorant. Young men wouldn't marry a pure girl and give her the clap for a wedding present if they knew better. But thousands of them are doing it every year in the United States. You have seen hundreds of them, marry pretty young girls and give them the clap right straight. They don't do it because they are malicious, they do it because they are ignorant. We need education as to doctors, too. We need to study this literature, we may not agree with all the literature, but I tell you we need culture, we need education, we need clear conceptions of our duties, and we must understand our obligation and responsibilities, and the duties growing out of them, and we cannot shrink from them. We have an interest in a man's moral and especially in his intellectual welfare as well as his physical welfare. We want to do it all in a year, and that is what causes these troubles. We want to shut up all the whore houses in a day, we want to stop all intercourse, and we know a man wasn't made that way. The strongest volcanic force in a man is his sexuality. We know that from our knowledge of men.

DOCTOR WRIGHT, Hugo:

I am a great fellow to ask questions. I attended a Child Welfare Conference in Philadelphia last year, and in one of the best talks it was said that the greatest trouble about the whole business was that they were not going to believe what these people told them. These people who did the talking were experienced. One was an old maid teacher in a New York school, who told how she explained to a mixed audience about how she showed them and explained to them by means of a flower—how she showed them the life spot in an egg,—and I want to ask a question right here. I want everybody to hold up their hand that believe that we as physicians in the State of Oklahoma, should take enough interest in the uplift of humanity in the communities in which we reside to be willing to go before the club women and before the men of our town or any organization and make it our business to enlighten them along the line of sex hygiene.

I presume that Doctor Day being so much older than myself and so much more modest didn't announce that we had today organized the Oklahoma Society of Social and Moral Hygiene. He was selected because of being a more handsome man—that is the reason why he was selected president and I presume the same would

apply to me being elected secretary. Doctor B——— is first vice president, and Doctor Risser, who addressed you, second vice president. The membership fee is fifty cents a year. The literature I passed around is from the American Society of Sanitary and Moral Prophylaxis, and is one of their magazines and pamphlets. The membership fee is two dollars a year, and I don't think I ever spent two dollars where I came nearer getting the worth of my money.

I have been working along this line for several years. I have heard parents say: I would be perfectly willing to teach my children these things, but I don't know how. That is true, they don't know how. I have had physicians to say that they did not really feel competent to teach their own children. I think we had better get hold of some literature and find out how, if we don't know. I think you will find that the people will appreciate your efforts if you will get hold of them. We cannot hope to teach these things in the schools yet, I think we have first to teach the parents, that they should teach the children at the present time. I understand that in Philadelphia they are—there will soon be a college there for the purpose of teaching teachers to teach sex hygiene to the child. While I favor legislation toward reporting these things, it is a big problem; it will not be solved in a year or in fifty years, probably, but we can certainly begin it, we are going to undertake it in this state. We want the ministers, the teachers, the medical profession and laymen enlisted in this cause, the redemption and uplift of humanity. We all know what the dangers are—we know that forty per cent of the insanity is directly attributable, and indirectly, as hereditary, twenty-five per cent of it is due to syphilis, and twenty-five per cent due to alcohol, and I think it is high time to at least do as much for our children as we do for our hogs and horses. A great deal of money is spent in this state—for instance—if you have a hog that is exhibiting symptoms of cholera, telegraph the Agricultural and Mechanical College, and they will send you a serum and if you don't know how to administer it, they will send you a man to administer it. But if your child has typhoid fever they don't send you any serum or any man to administer it. I think it is up to the medical profession to take hold of this work and push it to a successful issue.

Of course, we will be glad to have more members join this society

DOCTOR BEVAN, Oklahoma City:

I want to speak a word in the way of redemption of venereal diseases. While I agree with the doctors in education of the children, yet there is one other thing which seems to me more practical, and that will bring results more quickly than education of the children as to what these things mean, and that is as Doctor Wright

spoke, to educate the physician. Now it is not education as to the disease, we know what gonorrhoea is and how incurable it is, but we want to educate ourselves and have the nerve to tell our patients the exact truth, and instead of being coerced by their wishes and fear of losing the case and somebody else getting it, to tell them that they are well when they are not, we want to educate ourselves to be truthful with them and tell them frankly if they have the disease that it will take time, and time only can tell whether or not they are cured. At the present time, the advance of therapeutics in the treatment of gonorrhoea and later advances in the treatment of syphilis possibly we will have something soon now, which will eradicate it from the system, yet at the present time, we can do a great deal toward the prevention of these diseases among those with whom we come in contact and whom we can control. I explain to some of the more intelligent patients the consequences of the diseases, yet they will go right out and expose themselves. The American citizen enjoys to take a chance and he will take a chance, and the only thing that will bring practical and quick results is to use our preventive measures against syphilis and gonorrhoea, and while cleanliness is a very great preventative measure, yet we must be honest with our patients and tell them the facts in the case and keep them under treatment long enough so that a great percentage of them will be cured.

DOCTOR A. P. GEARHEART:

You spoke a while ago about this physician who had told some parties about a patient he had treated, he and his wife, and I believe that that physician himself was wrong in telling this case but supposing now a husband had come to a physician and he has the gonorrhoea and he asks the physician: "I want to get cured in a few days, because I don't want my wife to get it," and the physician tells him maybe it will be one month, six months or a year, and he don't follow that advice but has intercourse with his wife, oughtn't the physician have the right, especially if the wife comes to him having found out that the husband is using some kind of medicine and ask the physician: "What is the matter with John," shouldn't he say: "John has the gonorrhoea." We are talking about men, the time it would take him to get cured, but she soon comes to us and wants to know what is the matter. He forgets it is going to take time and he has intercourse with his wife and we are partly to blame.

DOCTOR RISSER:

The mere reporting of venereal diseases will not fulfill our duty. First, all physicians need to be educated to their responsibility to do their duty, the public needs to be educated to the duty of it, and our lawyers need to be educated to the justice of it. So



far as believing that all this can be done at once, I am sorry if I conveyed that impression, Mr. Chairman, because I do not believe we can revolutionize the men of this country. I don't believe we can stamp out venereal diseases by simply so saying, or by legal rule. Gentlemen, I believe that until we go to work unitedly; until we begin steps toward education we will never get anywhere. One of the great faults has been that we have failed to do our duty, and my plea is to urge that these men go out with a heightened sense of responsibility, that each one be enlisted in this work.

I plead that you do these things. Teach the young man the danger of infecting the wife with gonorrhoea; teach him the real danger of venereal diseases, that it is essentially chronic. Teach the hard task it sometimes is to cure. We ought to educate the people in these things. Doing less we shall not fulfill our highest duty.

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### FAILURES IN GALL BLADDER SURGERY

DR. J. HUTCHINGS WHITE, Muskogee, Oklahoma.

As technique improves less and less failures in this branch of surgery are evident. The removal of gall stones and a successful issue is a thing of joy to the patient, a source of great pleasure to the operator. Failure on the other hand is remorse to operator and a walking abuse to his skill as a surgeon. There is in a patient's mind no difference between the various operations for gall bladder trouble. He does not see why a case of one large gall stone in the bladder is not as serious and difficult operation as a much smaller stone impacted in the papilla or old cases of cholelithiasis with many inflammatory adhesions. They are all alike to him—a gall bladder operation.

In gall bladder work we have the gall bladder, cystic, hepatic and common ducts and possibly pancreatic changes to deal with. In a few cases also stone formation in the smaller bile ducts of the liver. We may have a gall bladder in normal position or it may project as a sausage shape tumor several inches below the free border of the liver, sometimes as low down as the iliac fossae. It may be so large and distended as to be mistaken for an ovarian tumor. On the other hand, as result of repeated inflammation, it may undergo an almost complete atrophy and exist as a small cord or nubbin so deeply buried in adhesions beneath the liver that it may be difficult to identify after the abdomen is open. It may be displaced to right or left or posteriorly so as to be to one side of the kidney.

The lymph channels of the gall bladder are few; one gland at junction of gall bladder with cystic duct and one gland at junction of the hepatic and cystic duct and several small glands which receive lymph from the common duct. The neck of the gall bladder, cystic



and common ducts are supplied by the lower dorsal and upper lumbar nerves.

This accounts for the deep seated pain felt in the median line in biliary colic and the accompanying spasm of the diaphragm.

It is indeed a poor practice to wait for jaundice to make a diagnosis of gall bladder trouble. Recently a patient was brought to me by two physicians. One said he did not think it was a case of gall stones because she had not been jaundiced. At the time I saw this patient she had a large indurated mass in the abdominal wall over the site of the gall bladder and was septic. I diagnosed an adherent gall bladder which had ruptured and formed pus in the abdominal wall. Under ether I made an incision to the right of the right rectus muscle below the right costal arch and on reaching the muscle pus and gall stones welled up in my incision. With a gall stone scoop I followed the track down into the gall bladder and out came the entire mucus lining of the gall bladder. I inserted soft rubber drainage tube, packed the pus cavity in abdominal wall and put the patient to bed. She made an uneventful recovery, returning to her home in an adjoining town at the end of two weeks.

Disease of biliary passages may lead to jaundice in a variety of ways.

First, catarrhal inflammation with swelling of mucous membrane, more or less complete closure of the papilla and retention of bile, not pain or colic.

Second, gall stones in gall bladder which give rise to cholecystitis with extension of inflammation to common duct giving rise to cholangitis and jaundice.

Third, inflammation of gall bladder with peritonitis and adhesions. the common duct may be compressed with the production jaundice.

Fourth. A large stone in cystic may compress the common bile duct and produce jaundice.

Fifth. Inflammation may extend to pancreas and cause chronic pancreatitis with jaundice.

Sixth. Tumors, usually cancer, produce jaundice mechanically.

Seventh. Gall stones impacted in common duct.

The importance of early diagnosis and operation cannot be too strongly urged, as it is of greatest importance to the individual.

Mayo statistics, published in St. Paul Medical Journal, February, 1905, was as follows:

"In 1,000 cases there were 50 deaths, or an average mortality of 5 per cent. The death rate in 820 cases where the disease was confined to gall bladder and for benign conditions was 3 per cent. In 416 cases of simple gall stone disease the mortality was less than one half of one per cent. The common duct operations amounted to

14.6 per cent of the whole. In 137 operations for common duct stones the mortality was 11 per cent. In 40 cases, or 4 per cent, malignant disease was discovered, and the operative mortality was 22 per cent. In practically all of these cases gall stone irritation had been the cause of the development of cancer."

The early and accurate diagnosis of this disease is possible in all but a small proportion of cases and they should not be continued on medical treatment until their chances of making a perfect recovery by surgery is swept from their grasp. These are not cases of acute indigestion, chronic indigestion, or neuralgia of the stomach. Sudden acute and severe pain at the point of the ensiform cartilage or to the right of this point, felt in the back, radiating to the right generally but may be to the left or upward to the right scapula, coming on independent of taking food is to say the least suggestive of gall bladder trouble. When these attacks are repeated there should be no hesitancy in diagnosing a grave condition of the upper abdomen and likely gall bladder disease. One, of course, in certain cases must not forget duodenal ulcer, gastric ulcer, kidney colic, disease of the posterior nerve roots and appendix. Usually, however, these conditions are not difficult to differentiate and besides they are all surgical and are reached by abdominal incision with one exception.

Autopsies disclose the presence of gall stones in 25 per cent of all subjects over 60 years of age and in from 3 to 10 per cent of all cadavers. Many of these subjects never have the classical symptoms to direct attention to that portion of their anatomy. Seventy-five per cent are in parturient women from 30 to 60 years of age.

MacCarthy has found that in acute catarrhal cholecystitis 69 per cent have gall stones, in chronic catarrhal cholecystitis 76 per cent have gall stones, while in chronic cholecystitis the percentage is 93.

Having decided to operate what is necessary for a successful issue in these cases? In those cases with a history of repeated attacks of colic notwithstanding the fact that a stone cannot be palpated if the gall bladder cannot be emptied by gentle pressure it should be opened and a further search made for concretions. In case none are found and the bile appears normal and without odor the gall bladder can be immediately closed. I consider it best, however, to always drain these bladders when once opened. I believe it is necessary to open and drain gall bladders which give rise to colic. It is just as necessary to cleanse an infected gall bladder as it is an infected urinary bladder. I do not wish it understood, however, that I think operative procedure necessary in all cases of cholecystitis, though I think these cases will, sooner or later, be followed by stone formation. This fact is shown by MacCarthy statistics.

Should stones be encountered in the gall bladder they should be removed, the bladder packed with a strip of gauze and further

search made along the hepatic, cystic and common ducts for more trouble. Finding no stones the gauze strip should be removed from the gall bladder and the end strip last removed should be stained with bile, showing the cystic duct is still patent. Drainage tube should now be inserted into gall bladder and with a purse string suture the free edges are inverted, the last stitch of the purse string catching the tube to hold it in place. This suture should be of cat-gut. In addition to this drainage I insert a cigarette drain beneath the bladder. In case stones are found in the hepatic duct they should if possible, be milked into the cystic or common duct and removed through the opening in the gall bladder or incision into the common duct. If it is not possible to remove these stones in that manner the hepatic duct should be incised and the stones taken out. Stones in the common duct are treated after the manner of hepatic duct stones.

As to the matter of drainage of these ducts: It is advisable, unless there is considerable inflammation, to close the incision by suture depending upon the gall bladder for draining. If the drainage of ducts is thought necessary, and it is more often the case with common duct than with hepatic, a small rubber tube with a notched end should be sutured in the incision and brought out through the abdominal wound just beneath the gall bladder drainage. When the common duct is opened it should be thoroughly probed to satisfy one's self that there is no further obstruction. In every case of cholecystectomy the ducts should be probed. If the gall bladder is large enough and can be brought to the abdominal wound without tension, it should be stitched to the peritoneum. There is still a difference of opinion when a cystotomy or cystectomy should be performed. Formerly the latter operation was the operation of choice, but the pendulum in later years has swung to cholecystotomy in most cases. The mortality in the latter operation is a little less.

Kehr in his table advocates cystectomy in the following condition:

"Stones in gall bladder already the seat of an inflammatory process, cystic duct patent at the moment. Adhesions between gall bladder and neighboring viscera.

"Acute cholecystitis in gall bladder already contracted from numerous attacks of previous inflammation. Cystic duct obliterated or closed by stone. Many adhesions. Small amount of exudate, mucoid or purulent. Fistula may exist between the gall bladder and intestines.

"Patent cystic duct adhesions between gall bladder and neighboring viscera."

With this form he also advises gastroenterostomy.

"Hydrops of gall bladder, cystic duct obliterated or closed by



stone. Contents of gall bladder clear, for most part sterile. Gall bladder wall as thin as paper.

"Empyema of gall bladder. Pus in gall bladder. Stone in cystic duct adhesions.

"Chronic closure of common duct by a stone. The stone in the supra-duodenal portion."

Here drainage of the common duct is also indicated.

In those cases where stone is impacted in the papilla the trans duodenal route is advised. In a recent article by Prof. Kehr, published in the *Muench. Med. Wochensch.* on "How Recurrences After Gall Stone Operations May Be Avoided or Diminished," he gives the following advice:

"1. The physician should refer his cases to the surgeon at an early period and not wait until an operation is no longer able to completely remove the inflammation and restore favorable conditions for the outflow of secretion. 2. The surgeon should operate thoroughly. He should restrict the indications for cholecystostomy as much as possible, and replace choledochotomy with suture by cholecystectomy with drainage of the hepatic duct. The tamponade and drainage should be so arranged that irritation of the ductus hepaticus and choledochus is still possible at the end of fourteen days. It is necessary to remember that the leaving behind of stones in the cystic duct and more frequently in the choledochus is often the result of faulty technic in disposal of the stump after cystectomy, the exposure of the hepatic duct and choledochus, and the method of tamponade. Many so-called recurrences may be avoided if greater attention is paid to the details of the technique, as, for instance, the shape and size of the drainage tubes. 3. It is unfortunate that some physicians are still unaware that even in cases of stones in the choledochus (33 per cent. of all cases) icterus is absent, and this should lead the surgeon to inspect the bile passages and to probe or incise them in cholecystectomy. Operations should not be confined to the gall bladder, but be extended to the ductus choledochus. A simple cystectomy is permissible only in exceptional cases. 4. To prevent false recurrences which may be attributable not only to the biliary passages but to the accompanying disease of other organs, it is essential in every gall stone operation to inspect and palpate the duodenum, pylorus, pancreas, appendix vermiformis, and where indications call for it, to at once resort to gastroenterostomy, hepatopexy, appendectomy, etc. To obtain permanent results after gall stone operations a sufficiently large abdominal incision should be made. Notwithstanding the most thorough operation, however, recurrences have to be reckoned with in about 10 per cent. of cases. The true recurrences of which so much is said to occupy a subordinate place, and chiefly follow conservative methods, while they are practically absent after cystectomies and drainage of the hepatic duct."



In conclusion I can only figure out two courses of failures in gall bladder surgery, if we exclude the 10 per cent of failures which Prof. Kehr claims will occur in spite of all precautions.

First. The cases are not referred by the general practitioner early enough or before changes have taken place which are not always remedied by operation.

Second. The surgeon not knowing sufficiently well his pathology to recognize changes in the gall bladder or ducts which require the most modern and thorough treatment according to the teachings of those surgeons with the largest experience in this class of work. The duty, therefore, falls upon the surgeon to emphasize to the general practitioner the importance of early sending cases for operations and it behooves those of us doing surgery to sufficiently acquaint ourselves with the changes in these structures that we instantly recognize the pathology and know the necessary work to be performed.

DOCTOR ROSS GROSSHART, Tulsa:

I think the Doctor would know a gall bladder if he was to see it. His explanation there has covered the ground very thoroughly. The chief object in view and getting results in gall bladder work is doing your work right and understanding your anatomy and pathological changes as they exist. There are many times that the practitioner treats his gall bladder trouble and biliary colic, etc., as bilious troubles, the patient has suffered pain, vomiting, and so on, and he dopes him up with morphine and relieves the pain, the stone that is the cause of the trouble slips back into the gall bladder and the pain is relieved and the patient goes on for some weeks and it is repeated again. These conditions should at least be referred to a surgeon and in my opinion should be operated on, all of them. You may not find a stone where you expect it. One time I was operating for a doctor, I operated for a pain in the belly, and I told him jestingly—I could feel the stones, I said to him: "I don't believe there are any stones here," and he says: "Wait a minute, I have to go down stairs. He said "There is rocks in there and I have got to have one to show." There are many times you will make a diagnosis of stones and open the bladder and there will be none. So it may be a condition exists under those conditions and the surgical procedure cured them, and they remain cured if they are operated early enough and the technic is perfect. They should be referred early to a surgeon, and I want to impress on a general practitioner to make a diagnosis of his gall bladder troubles and to make them early. As has been said when you have a condition of indigestion that is not demonstrated to be caused by an ulcer, that there are three conditions in men and four conditions in women that this indigestion is due to, and why should the general practitioner, knowing that this condition exists,—why should he treat his patients with

pepsin and give them all kinds of calomel and physic and treat them from time to time and they drift from place to place and finally wind up as a last resort getting them to go to a sanitarium when if they had had the proper instruction at home from the family physician,—if he had given the proper attention and diagnosis of the case, there are men in his own vicinity who could take care of his patient, could have saved his reputation, and saved the patient the expense and probably his life. . .

DOCTOR HORACE REED, Oklahoma City:

I think it a bad habit we have fallen into in our discussion of gall bladder troubles, to lay too much stress on gall stones.

I think it has been sufficiently proven that cholecystitis is the almost uniform forerunner of gall stone formation, that we may let it rest at that point and explain to our patients when they seek our advice for such trouble that they have a damaged gall bladder and we do not necessarily have to demonstrate gall stones in order to be able to prove to them that they can get a cure. I have seen so many cases in my experience, much larger than the statistics which are published, in which there would be deep jaundice, in which no stones could be demonstrated. In these cases I have been able to demonstrate that there have been troubles within the ducts caused by repeated traumas of gall stones passing in previous years, or a compression from the head of the pancreas, which would produce the same effect as an obstruction by stone. It is an anatomical fact that in 62 per cent of all cases the common duct passes through the head of the pancreas. As observations have been made more closely, and that has been a matter of the last few years, it is shown that in a large percentage of these cases the pancreas is involved. That brings up the question of how we shall treat the results of gall bladder infection, rather than the infection itself. Do we produce a cure by removing the gall bladder which is the original source of infection, when what we are dealing with now is not the infection itself, but its results? Working along this line, along this theory, I have been more and more inclined to conserve the gall bladder, diseased or otherwise, whatever the pathology may be, and particularly when the obstruction was due to the pressure of the pancreas. The failures in gall bladder surgery that I have had have been in those cases first, where the gall bladder was removed in the presence of pancreatic diseases. Second, in those cases which will fail in any event, where there exists stricture of the common duct. I have in mind a patient now, whom I operated on six or eight months ago, who about ten years ago began passing gall stones. This kept up for six or eight years, when he had a period of fairly good health. Then he began with jaundice, gradually getting deeper, and then renewed attacks. Exploration showed that the gall bladder was a very small affair, down under the liver, head of the pancreas

was slightly enlarged, but the common duct represented a thick cord-like stricture, nor could it be demonstrated that there was a stone or obstruction which was amenable to treatment. Such cases will always give trouble. In the first place you cannot do a cholecyst-enterostomy—you don't have sufficient gall bladder. In the second place you have no way by which you can enlarge the lumen of the ductus choledochus and the only thing you can do is to drain what may be left of the gall bladder.

These patients will go on for months and years with more or less trouble. They may be made comfortable by following hygienic and dietetic rules. They will be a source of trouble, and the surgeon who operates on such cases will have to warn them of these things, and get their confidence, if he expects to retain them as patients. Then I make it a rule unless I know that the trouble is yet in the gall bladder, or that it is a continual source of infection, and unless I know that the common duct is not damaged, and that the pancreas is not diseased, not to remove the gall bladder, but drain it. The opposite is true then, of course, if the gall bladder is still the source of irritation, its removal is indicated. For the technic of cholecystostomy great stress is laid upon the fact that the edges of the gall bladder should be inverted, and there are those who contend that it ought to be stitched to the peritoneum. I do that no longer unless it comes up there without tension. I do, however, make secure the gall bladder around the top of drain so there will be no leakage into the abdominal cavity, and let it rest. I find the convalescence of patients is smoother, they don't complain of that pain which is so frequently noticed in gall bladder surgery.

If great care is exercised in opening the gall bladder not to soil the peritoneum, a second drain is superfluous. I rarely use it and I have no regrets in not having used it in any case so far.

DOCTOR REEDER, Asher:

I would like to make a few remarks on that paper from the standpoint of the general practitioner. Of course, in all these surgical papers read, great stress is laid on the fact that the general practitioner should refer these cases early. But what I want to know is how will you do it. All of you—who have been general practitioners, know the difficulty of persuading a patient to undergo an operation. If you insist on an operation they will consult somebody else the next thing, and say: "Well, I went to Doctor Smith, or Jones or Brown and they had given me up and advised an operation. He treated me about a year ago, and I haven't had an attack since. I kept up his treatment and he cured me, but I quit taking his medicine." Well, we realize these conditions, and we advise operations, but if we advise too strenuously we don't only fail to get the patient to the surgeon, but we lose the patient ourselves.



DOCTOR OLDHAM, Muskogee:

Just one or two remarks on the diagnosis of these conditions. The history plays the more important part, and as to the actual finding of stones, I think that should be something that should not bother us at all. I make it a rule to tell all these cases that I am operating for a condition, and the intention of the operation is to relieve that condition, and if stones are encountered they are an incident similar to finding fecal concretions or foreign bodies in the appendix. We should know that gall stones are the result of a condition and not the cause. These cases of long, periodic indigestion, with intervals of apparent recovery, without symptoms of appendicitis or gastric ulcer, are a majority of them due to an infection of the gall bladder. These case histories should be followed closely and the patient should be asked distinctly about pain. Most patients who come to us don't remember back over a year or eighteen months. Just ask them: "Have you had any bilious colic, or pain?" "Oh, no, I haven't had any." You go back five, ten or fifteen years and you will find that he has had a few paroxysms, and in a great many cases he has had to resort to the hypodermic use of morphine, and we should not fail to go far enough back to get that history, and in most cases we will get it.

Two other strong causative factors in cholecystitis will be found in cases following typhoid fever and following pregnancy. A great many of these cases beginning during some period of gestation.

DOCTOR WHITE, (closing.)

As to the question of diagnosis of gall stones in these cases, I think we should never make a positive diagnosis of gall stone, but rather gall bladder trouble, and as the point has been taken up pretty well, I will go no further with that.

Doctor Reed referred to the matter of stitching the gall bladder to the abdomen, and I tried to make it clear in my paper that the gall bladder was never stitched to the abdomen unless it could be done without tension. I don't think there is anything much to be gained by stitching it there then, except that at some future time he might have use for it. The point that he brought out about the drain beneath the gall bladder I am much obliged to him for. I used to have a good deal of trouble with these patients, the first three or four days, and I finally found it was because I was using rubber drainage tubes. I put in three, one down on each side of and beneath the bladder and in the bladder, and I quit that and put in just one cigarette drain, and as a result have had very little trouble. They can breathe very much easier after the operation.

In reply to the doctor's point about what to do with these patients if they want to go to Doctor Jones or Smith, I think as a matter of fact, as a rule the medical profession do not take their



patients into their confidence as they should. It is easy enough to make a diagnosis to your own satisfaction, but it is not always satisfactory to the patient. They would like to have some little explanation, and I think with this gall bladder question we cannot be too careful in advising. It would be foolish to tell a patient he was going to have gall bladder colic all of his life, because we want a patient who suffers from it to do more than to have a return of it after years. I saw a patient the other night who hadn't had the attack for a year and a half, and prior to that she had it every three or four weeks. I recollect another case of an old lady who had these attacks of colic, and they suddenly disappeared and the last time I saw her she was apparently well and hearty and was apparently all right. Evidently that lady had operated on herself. Adhesions may be in the intestines and they get over it.

Where they know what to expect and know the doctor who is dealing with them, they know in nearly every instance it will come out about as he said. These cases are much easier to hold.

In nearly all of these cases you find that most of these stones we operate on will give a history of having made trouble for eight to fifteen years. In averaging these cases they operate on, the Mayos say an average is nine years.

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### DR. FISHMAN'S BERLIN LETTER

Berlin, September 1, 1912.

In general, medical teaching throughout Europe is so well organized and the clinical material so vastly abundant, that it offers unusual opportunities for all kinds of post-graduate work. The professional courtesy offered to foreign physicians who come here for study is uniform and genuine.

Germany, for various reasons, is the most attractive country in the world for medical men. Nowhere is there so much research work being done along all lines, as in this country; and moreover, this is just as true of the fundamental medical sciences as it is of the clinical branches. In Serology, Bacteriology, Pathology and Neurology and other branches, the work is carried on in a most scientific manner and is of the highest grade. Here we find men whose names are identified with the development of the highest ideals in medical science. Such men as Ehrlich, Koch, Wasserman, Virchow and Behring will always stand out pre-eminently in the history of scientific medicine of this generation.

Within recent years particularly, Berlin has acquired men whose names are familiar to every practitioner of medicine as some of the greatest living clinicians of today. I need only mention Ewald, His, Pick, Boas, Goldscheider, Oppenheim, Klempner and Kuttner, as well as others who have stamped an indelible imprint upon the medical literature of the world.

The chief of every large clinic has a corps of assistants of bright, active, serious and alert young men, who work incessantly and earnestly in their chosen lines until they have accomplished something that will give them an enviable standing in the profession, or until they have given up the last hope in this effort. There is no country where there are so many active men willing to work in laboratories and clinics for years and years for only the prospect of promotion. From such an immense army of workers may develop such men as a Virchow or Koch, great characters in the medical profession and in the world at large.

The post-graduate work in the German Empire is systematically arranged and indeed the provisions for this arrangement, like nearly all provisions for general good, are "Königlich," or under governmental supervision. The central committee in Berlin assists in arranging the work of the local committee in all parts of the country. Of these, there are fifty-two which in the course of their work, cover the entire field of medicine and surgery. This organization does for the practitioner what the university does for the student. The headquarters are located in a beautiful large permanent exhibition building in Berlin, where there is a large collection of models and apparatus pertaining to medical development and medical teaching. These are frequently sent to other cities and towns of the empire for the purpose of assisting in post-graduate courses and teaching.

Berlin professors also go out at times to hold single lectures or a series of them when a course is given in some of the other towns. These courses are frequently free or the fee is nominal and Germany's best men give their services to this commendable work. The most usual time for these courses is during the university vacations and particularly during March and October. Besides this, the Academies of Medicine in the larger centers of the empire, give a symposium upon special subjects for physicians from the surrounding territory, to which, however, others have access upon the payment of a moderate tuition fee. For example, this year at Dusseldorf, there will be a symposium upon the diseases of the stomach and intestines. This lasts two weeks and the work is given by some of the best authorities in the empire.

Berlin is also the seat of the Königliche Friedrich Wilhelm University, the largest in Germany, which has nearly eight thousand matriculated students. Its medical department is likewise the largest in the Empire, having 198 active members on the faculty. The hospital arrangements are such that the students have access to the material and come in exceedingly close contact with the patients and the work. One of the oldest hospitals in Germany is the Charité, which celebrated its two hundredth anniversary last year. It comprises twenty-two separate buildings and has a capacity of about fifteen hundred beds. This hospital is under royal supervision and is closely associated with the university. Its various departments

have always been supervised by men who were history makers in medicine. The director of the first medical clinic is now Professor His, who is an excellent clinician, a fine teacher, a clear thinker and a scholar. He succeeded the memorable Von Leyden. Professor Krause is now chief of the old Gerhart clinic. He is exceedingly popular with the Americans as well as with medical visitors from all parts of the world, being an able teacher, a forcible lecturer and a careful diagnostician. Professor Orth, in charge of the Pathological Institute, is a worthy successor to the illustrious Virchow, whose immortal teachings emanated from this institution. Heubner, whose text-book on the diseases of children is so well known, has charge of the pediatrics department, and Professor Doederlein is director of the gynecological department.

Besides the Charite, there are in Berlin nine other hospitals having bed capacities of five hundred or over, which are either under governmental or municipal supervision, and these are all available for student teaching. One of the most beautiful and best equipped hospitals of today in Germany is the Rudolph Virchow Krankenhaus, which was completed in 1906 at a cost of 22,000,000 marks, or over \$5,000,000. It is built in the midst of a beautiful park of sixty-three acres upon the cottage system and comprises sixty-seven buildings, having a bed capacity of over two thousand.

Besides, there are the unusual advantages of the polyclinic or dispensary work due to a system of provisional medical treatment, of which I may have occasion to speak at some future time.

Within recent years, Berlin has become a mecca for the foreign man and for the one who understands the German language well, is said to be superior even to the advantages offered in Wien.

C. J. FISHMAN.

## EDITORIAL

### BUBONIC PLAGUE --- POSSIBILITIES OF EPIDEMIC IN THE UNITED STATES.

It has been a little more than a year since the discovery of a case of bubonic plague in California and a short time since the discovery of rat plague in the city of New Orleans. Porto Rico has had 53 cases lately with no new cases since September 3rd. The Marine Hospital Service is using every possible means toward the immediate diagnosis and discovery of this disease should it become prevalent in the United States and every possible effort is also being made to keep our ports free from infection.

In the vicinity of San Francisco and Oakland the killing, trapping, poisoning and other means of destruction of rats is made a serious business and their destruction is also made a business in our ports.

So far the principal efforts for control and prevention are confined to the Federal Authorities, naturally on account of their control of ports of entry and their work is thorough and effective, but should a foothold be gained in the cities and small towns of the country, the bulk of the work must necessarily fall on the health officers and medical profession throughout the country. Galveston and New Orleans are only 24 hours from our borders and from these ports infection may be looked for if it reaches us. It becomes our duty then to anticipate its possible arrival and be informed and ready to meet the trouble.

Some of the county medical societies of Texas have already taken steps to advise the general public of the aspects of this affection and the necessary steps to take for its prevention and eradication and among these advices rat extermination is given the greatest prominence.

It seems that the rat per se is not infected so much with the disease, but he is host to a small flea that is one of the most active carriers and spreaders of the infection and this causes the further admonition to destroy everything harboring this active little bug, even to the careful attention to the family dog who may become a carrier of the flea.

Attention was recently called to the virulence of the diseases of civilization in our Oriental holdings, especially of those diseases usually considered harmless or nearly so in this country; it is possible that nature may be arranging for an exchange of courtesies in the administration of fairness and that for our harmless measles we may receive typhus fever; for our syphilis we may receive the bubonic plague, and for our other affections we may receive something more virulent in return.



## EPIDEMIC MENINGITIS

While discussing imminent possibilities we should not forget that epidemic cerebro-spinal has never been entirely absent from the state for any length of time since its appearance early in the year and that the State Health Department is occasionally advised of new cases, the diagnosis being verified by microscopic examination and the disease amenable to the serum treatment and none other.

It is reasonable to assume that if we have a few scattered foci of infection yet left in the state we may expect a recurrence of this trouble when more favorable conditions for its growth and spread arise and we should be prepared to meet the emergency when it comes.

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## PELLAGRA

An editorial quoting authoritative statements in the Texas State Journal of Medicine estimates that state now has approximately ten thousand cases of Pellagra and that the end is not yet in sight.

No doubt if this statement is even a triple estimate of real conditions we, too, have our cases in Oklahoma for very similar conditions as to soil, climate, elevation, etc., prevail, and we probably have a great many unrecognized cases to contend with as well as cases called by some other name and at death reported as some other disease.

Pellagra is unquestionably the hardest problem ever given the medical profession to handle; its etiology is in dispute, its symptoms very varied and its treatment seemingly without avail. Most of us who think over the matter now recall cases that in the light of this day were cases of pellagra unsuspected at the time.

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## Personal and General News.

Dr. I. B. Oldham, Muskogee, has returned from a trip through Kentucky and to the Chicago Clinics.

Dr. F. B. Fite, Muskogee, President of the State Board of Medical Examiners spent a part of August and September at his summer home in North Carolina.

Dr. C. A. Thomas formerly of Weatherford has located in Tucson, Arizona; his address is 30 East Pennington Street.

Dr. L. S. Willour of Atoka has moved from that place to McAlester and is associated with Dr. LeRoy Long.

Dr. T. J. Long of McAlester has moved from that place to Denison, Texas, and it is reported assumed charge of the medical and surgical work of the Missouri, Kansas & Texas Railway Company. The medical profession of Oklahoma is a loser by Dr. Long's departure.

Dr. A. W. White, Oklahoma City, President of Oklahoma County Medical Society spent a part of the summer in the Chicago Clinics.

Dr. J. E. Harbison, Oklahoma City, attended the meeting of the Rock Island System Surgeons held at Pueblo, Colorado, September 1st.

Dr. George D. McLean, Oklahoma City, spent his summer vacation in Colorado.

Dr. Curt Von Wedel, Oklahoma City, was recently operated on for appendicitis in New York City.

Dr. F. M. Adams of Big Cabin has been appointed superintendent of the New State Hospital for the Insane at Vinita, Oklahoma. Dr. Adams is to be congratulated on this appointment; his friends know he will make good.

Dr. H. C. Breese of Henryetta spent this summer vacation in Ohio.

Drs. W. W. Carson, J. B. Hill and A. T. Waring of Muskogee County were recently assessed fines for failure to report deaths.

Dr. John W. Duke announces that the Oklahoma State Board of Medical Examiners will meet in Muskogee October 7, 8 and 9 at the Severs Hotel.

Dr. Harriet B. Jennings, Muskogee, has been appointed as an assistant in the United States Indian Service for the purpose of doing special work toward the treatment and prevention of trachoma among the Indians. Dr. Jennings recently presented the Muskogee County Medical Society, with which she has been affiliated for a long time, a large number of volumes to be added to the library of the society.

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### THE RECORD ON EPIDEMIC MENINGITIS

Dr. J. C. Mahr, the State Commissioner of Health has just been sending over the state a letter or form of inquiry asking information on the treatment of the different cases of meningitis reported to his office during the early part of 1912. The letters are being pretty generally answered and when compiled and digested will prove very valuable as an added authority on the proper treatment of this disease and the improper treatment too, which no doubt was administered in many instances.

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### PONTOTOC COUNTY MEDICAL SOCIETY

The physicians of this county, at least a respectable part of them met recently and organized a county medical society under the aid and direction of Dr. H. P. Wilson, the District Councillor. Those participating in the organization were W. D. Faust, President, Isham L. Cummins, Secretary, R. T. Castleberry, S. P. Ross, J. M. Vaden, J. A. Deen, of Ada and C. L. Orr and J. L. Jeffress, of Roff.

## COUNTY SOCIETY MEETING

The Kiowa and Washita County Medical Societies held a joint meeting at Rocky August 14th. The meeting consisted of a morning clinic, a banquet and a program as follows: Headache due to Eye Strain, J. R. Dale, Hobart; Enteritis, A. S. Neal, Cowden; Regeneration of the Blood, A. L. Wagner, Hobart; Suggestive Therapeutics, E. T. Sandberg, Cordell; a paper by J. W. Kerley, Cordell; The Early Diagnosis of Exophthalmic Goiter, A. L. Lloyd, Hobart.

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## SCHOOL HEALTH CLUB

Volume 1, Number 1 of the School Health Club an independent venture published by Dr. J. W. Echols of McAlester and in the interests of the prevention of tuberculosis among school children and carrying as a slogan the trite saying, "Prevent Tuberculosis and No Cure is Needed," has been received by the Journal.

A publication of this sort will find a fertile field in Oklahoma and should have the moral support of the medical profession and the financial support of all people. The prevention of tuberculosis in Oklahoma at this time is one of the most needed things before us, the task is monumental and requires co-operation from all sources. This publication has and will have no subscription list and is supported by voluntary contributions which should be sent to Dr. J. W. Echols, McAlester; the funds so acquired will be used for the publication of little folders and bulletins to be circulated among the school children of Oklahoma. This is a worthy cause.

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## BOOK REVIEWS

### SURGICAL CLINICS OF JOHN B. MURPHY, M. D. Mo.B

#### VOLUME I., NUMBER IV (AUGUST)

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume I Number IV., (August.) Octavo of 154 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8. Cloth, \$12.

Among the notable features of this, the fourth issue of Dr. Murphy's Clinics is a clinic on acute appendicitis and pneumonia, with illustrating remarks on the differential features of the affections and one on chronic appendicitis which should be read by every man practicing medicine whether he be dull, mediocre or brilliant; for chronic appendicitis continues, with its complications, to exact a frightful toll of human life and this result is largely due to the fact that it is yet in many places and among different men misunderstood and treatment misdirected. Quoting Dr. Murphy in this particular place is worth while. "Every case of appendicitis which is operated in which

pus is found outside of the appendix at time of operation, has, in the presence of that pus irrefutable evidence that the case was badly managed up to that time." This statement should be dinned into the ears of a rapidly vanishing element, yet still slightly existing of our profession who cling to the idea that some cases are amenable to medical treatment. A few pages from a man like Murphy who knows how to tell things in his effectual way are worth more than a volume from some other man. The issue also abounds in the usual amount of bone and joint surgery and winds up with one of the author's famous students clinics, which always happen to be as instructive and enlightening to the visiting physieau as to the student.

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## DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEY.

(Third Revised Edition.)

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Green, M. D., Professor of Genito Urinary Surgery at the Fordham University, New York; and Harlow Brooks, D. D., Assistant Professor of Clinical Medicine, University and Bellevue Medical College. Third Revised Edition. Octavo of 639 illustrations. Philadelphia and London, W. B. Sanders Company, 1912. Cloth, \$5 net; Half Morocco, \$6.50 net.

In this up to date work we have a volume of thirty chapters devoted to the consideration of genito-urinary diseases from a modern viewpoint.

To the general practitioner genito-urinary affections have long been a Waterloo and time does not improve the matter much for gonorrhoea is the source of as much mortification and dissatisfaction today as it was ten years ago. The best equipped specialist has his troubles with troubles incident to infections and diseases of the urethra, bladder, ureters and kidneys and their accompanying organs just as does the country practitioner and no field shows as many wrecks of professional reputation as does the field of genito-urinary affections, especially those due to gonorrhoea and its resultant complications. With this knowledge clearly before us we should eagerly grasp every bit of information within our reach. Greene and Brooks have given us a book very full of the operative procedures in their field, the cuts are very fine and profuse enough to properly illustrate the subject, many of them being entirely new and original. The work can safely be commended to both general practitioner and specialist and should meet with a good reception from all who give this particular subject attention.

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## INFANT FEEDING

Infant Feeding. By Clifford G. Grulee, A. M., M. D., Assistant Professor of Pediatrics at Rush Medical College, Attending Pediatri-



cian to Cook County Hospital. Octavo of 295 pages, illustrated. Philadelphia and London: W. B. Sanders Company, 1912. Cloth \$3.00 net.

The arrangement, style, scope, illustrations and text of this work are somewhat different from any book recently brought to the writer's notice. In the first place the text and subject is one that has not been greatly entered into heretofore by writers and when considered by them has been as a part of the general subject of children's diseases; this book takes up infant feeding in all its phases and nutritional disturbances, physiology, absorption and metabolism and bacteriology of the gastro-intestinal tract of the infant are fully considered.

The illustrations are all new, several are in color and are most excellent. The book should be well received by those dealing with the infant life and its complexities.

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### PRELIMINARY PROGRAM SEVENTH ANNUAL MEETING

Seventh Annual Meeting of the Medical Association of the Southwest, Hot Springs, Arkansas, Oct. 8-10, 1912.

President, Dr. A. L. Blesh, Oklahoma City, Okla.; Secretary-Treasurer, Dr. F. H. Clark, El Reno, Okla.; Vice Presidents, Dr. G. W. Robinson, Kansas City, Mo.; Dr. F. B. Young, Springdale, Ark.; Dr. W. S. Lindsay, Topeka, Kan.; Dr. W. H. Freeman, Lockney, Texas.

This is only a partial list of the papers presented; many others having been promised for the Seventh Annual Meeting to be held in Hot Springs, Arkansas, October 8-10, 1912.

#### SECTION OF MEDICINE.

Chairman—Dr. W. T. Wooton, Hot Springs, Ark.

Vice Chairman—Dr. T. C. Sanders, Shawnee, Okla.

Secretary—Dr. C. W. Fisk, Kingfisher, Okla.

Oration on Medicine: "Some Experimental Studies in the Treatment of Typhoid Fever, With a Low Caloric Food Value," Dr. M. L. Graves, Galveston, Texas.

"The Necessity of Gastric and Stool Analysis in Digestive Disorders," Dr. E. D. Holland, Hot Springs, Ark.

"Subject to be Announced," Dr. E. P. Bledsoe, Little Rock, Ark.

"The Proper Lubricant and How to Use It in Urethral Instrumentation," Dr. Thomas M. Paul, St. Joseph, Mo.

"Personal Observations Upon the Use of the Caloric Methods in Infant Feeding," Dr. Frank C. Neff, Kansas City, Mo.

"Diagnosis of Gastric and Duodenal Ulcer," Dr. F. W. Froehling, Kansas City, Mo.

"Lesions of the Mid-Brain With Special Reference to the Weber,

Benedict and Nothnagel Syndromes, With Report of Case," Dr. G. Wilse Robinson, Kansas City, Mo.

"Cerebro-Spinal Fluid Diagnostics, (will illustrate with slides specially prepared), Dr. A. L. Skoog, Kansas City, Mo.

"Really Medical and Surgical Traumatic Neurasthenia," Dr. A. K. West, Oklahoma City, Okla.

"Pellagra," Dr. K. H. Beall, Fort Worth, Texas.

"Subject to be Announced," Dr. J. W. Duke, Guthrie, Okla.

"Subject to be Announced," Dr. S. Grover Burnett, Kansas City, Mo.

"The U. S. P. and National Formulary," Dr. E. C. Eberle, Dallas Texas.

"Meningitis," Dr. John S. Turner, Dallas, Texas.

"Abortion," Dr. H. O. Leonard, Kansas City, Mo.

"Extra-Uterine Pregnancy," Dr. M. C. Porter, Topeka, Kan.

"Some Observations on Diabetes," Dr. L. S. Milne, Topeka, Kan.

"Diagnosis," Dr. M. K. Lindsay, Topeka, Kan.

"La Grippe, Some of its Most Important Manifestations and Complications," Dr. Clarence E. Lee, Oklahoma City, Okla.

"The Value of Tuberulin in Diagnosis," Dr. L. J. Moorman, Oklahoma City, Okla.

"The Possible Interrelationship of Infectious Dermatitis (Pustular Eczema) Dermatitis Repens and Aerodermatitis Perstans," Dr. R. L. Sutton, Kansas City, Mo.

"Subject to be Announced," Dr. P. T. Bohan, Kansas City, Mo.

"Report of Ten Cases of Duodenal Ulcer," Dr. C. C. Connover, Kansas City, Mo.

"The Treatment of Hyperacidity," Dr. Chas. Hugh Neilson, St. Louis, Mo.

"Hereditary Syphilis," Dr. E. H. Eastman, Hot Springs, Ark.

"Relation of the Infant to Food," Dr. Jules M. Brady, St. Louis, Mo.

## SECTION ON SURGERY:

Chairman—Dr. Bacon Sammers, Fort Worth, Tex.

Vice Chairman—Dr. J. F. Binnie, Kansas City, Mo.

Secretary—Dr. Howard Hill, Kansas City, Mo.

Oration on Surgery: "Surgical Vagaries and Old Wives' Tales," Dr. J. F. Binnie, Kansas City, Mo.

"Does Anchoring the Kidney Relieve the Neurosis?" Dr. Joe Beeton, Greenville, Texas.

"Stereoptican lecture, illustrating Genito-Urinary Surgery, Methods of Cystoscopy Pathological condition of Prostate, etc." Dr. Bransford Lewis, St. Louis, Mo.

"The Greatest Surgical Problem," Dr. Chas. Wm. Heitzman, Muskogee, Okla.

Title to be Announced, Dr. LeRoy Long, McAlester, Okla.

The Technique and Difficulties of Intravenous Medication," Dr. E. H. Martin, Hot Springs, Ark.

"The Diagnosis of Extra-Uterine Pregnancy," (illustrated with stereoptican) Dr. H. S. Crossen, St. Louis, Mo.

"Treatment of Compound Fractures," Dr. Blickensderfer, Shawnee, Okla.

"The X-Ray Diagnosis of Stomach and Intestinal Lesions," Dr. E. H. Skinner, Kansas City, Mo.

"Pathogenesis of So-Called Congenital Cystic Diseases of Parenchymatous Organs," Dr. A. E. Hertzler, Halstead, Kan.

"Operative Treatment of Simple Fractures," Dr. A. E. Pearse, Kansas City, Mo.

"Etiology, Pathology and Diagnosis of Gall Bladder Affections," Dr. C. C. Nesselrode, Kansas City, Kan.

"Uncomplicated Fractures of the Tarsal Scaphoid," Dr. Alexander E. Horwitz, St. Louis, Mo.

"The Treatment of Infections," Dr. E. H. Troy, McAlester, Okla.

"Needless Traumatism in Rectal Surgery," Dr. W. H. Stauffer, St. Louis, Mo.

"Surgery of Obstetrics," Dr. T. J. Ernest, Topeka, Kansas.

"Medico Legal Aspect of Fractures," Dr. J. C. McClintock, Topeka, Kansas.

"The Fallacy in Surgery," Dr. C. S. Pettus, El Dorado, Ark.

## SECTION ON EYE, EAR, NOSE AND THROAT

Chairman—Dr. H. Moulton, Fort Smith, Ark.

Vice Chairman—Dr. M. F. Jarrett, Ft. Scott, Kansas.

Secretary—Dr. J. W. May, Kansas City, Kansas.

Oration: "Railway Hospital Associations" (by invitation) Dr. Frank Allport, Chicago, Ill.

"Chairman's Address," Dr. H. Moulton, Fort Smith, Ark.

"Report of Cases of Malignant Tumor Treated by the Starvation Method," Dr. E. H. Carey, Dallas, Texas.

"The Usefulness of the New Schiotz Tonometer With Demonstrations," Dr. W. H. Luedde, St. Louis, Mo.

"Sympathetic Ophthalmia With Special Reference to the Influence of Foreign Bodies Retained Within the Globe," Dr. John O. McReynolds, Dallas, Texas.

"Syphilis of the Nose and Throat," Dr. Robert Caldwell, Little Rock, Ark.

"The Surgical Tonsil," Dr. J. H. Barnes, Enid, Okla.

"Luxation of the Lens Following Traumatism," Dr. R. S. Magee, Topeka, Kansas.

"Topographical Anatomy of the Bony Labrynth," Dr. T. O. Edgar, St. Louis, Mo.

Title to be Announced, Dr. L. Haynes Buxton, Oklahoma City, Okla.

Title to be Announced, Dr. M. F. Jarrett, Fort Scott, Kansas.

"Conservation in Surgery of the Turbinates, Tonsils and Adenoids," Dr. W. M. Moore, Paris, Texas.

"Aato-Intoxication in Relation to the Eye," Dr. H. L. Hilgartner, Austin, Texas.

"Bronchoscopy, Esophogosecopy, Further Report of Cases," Dr. H. T. Mann, Texarkana, Ark.

Title to be Announced, Dr. Joseph Litchtenberg, Kansas City, Mo.

"Sub-Mucous Operation for the Correction of Deviated Nasal Septi," Dr. Theo. A. Coffelt, Springfield, Mo.

"Diagnosis of Diseases of the Optic Nerve," Dr. L. H. Lanier, Texarkana, Ark.-Tex.

"The Removal of Senile Cataract Before Maturity," Dr. J. Ellis Jennings, St. Louis, Mo.

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### BONE PLATING.

E. A. Babler, St. Louis (Journal A. M. A., May 25), has analyzed sixty-one cases of bone plating in the City Hospital of St. Louis and tabulates the results. He finds that the greatest danger of plating is infection and consequent osteomyelitis, and in all cases of compound fracture of the tibia, fibula, radius, ulna and clavicle the plate should be removed as soon as possible. It should never be placed immediately under the skin. Plating yields the best results in simple fracture of the humerus and femur providing all precautions are taken to prevent infection. A snugly fitting cast should be applied immediately after plating and this done as carefully as the plating itself. Plating is not recommended except in cases in which the skiagraph shows that it is advisable, since it is impossible always to avoid infection. He goes over several of the special conditions in which the method is applicable in particular. In his sixty-one patients with sixty-six platings there were thirty-five plates removed, twenty-six perfect functioning results; one death was due to postoperative pneumonia, one to shock following a second plating and two to sepsis. Plating, he says, yields the best results in cases (a) of nonunion; (b) of compound fracture with considerable displacement, and (c) of simple fracture of the humerus and femur, in which the skiagraph indicates the inefficiency of the closed treatment. "Plates should never be placed immediately beneath the skin unless we expect to remove them. I seldom or never plate the clavicle, radius, ulna or fibula, since the absorbable wire is preferable. The character of the fracture and the skiagraph findings indicate the proper treatment in any given case of fracture of the long pipe bones."



## Report of Examination for Licenses to Practice Medicine.

OKLAHOMA STATE BOARD OF MEDICAL EXAMINERS AT OKLAHOMA CITY,  
JULY 9-11, 1912.

Name	School of Grad.	School of Practice		Address
		Year	Per Cent.	
Mary D. McFarland.....	Flint Medical College.....	1907	R. 70	Muskogee, Okla.
Ora O. Dawson.....	University of Oklahoma.....	1912	R. 83	Wanette, Okla.
Frederic W. Kienzie.....	Med. Col. of Ind.....	1902	R. 74½	Oklahoma City.
Hugh R. Shannon.....	St. Louis University.....	1911	R. 78½	Enid, Okla.
Pauline Quillin.....	University of Oklahoma.....	1912	R. 81 9-10	Guthrie, Okla.
H. Webb Finley.....	University of Oklahoma.....	1912	R. 78 8-10	Reed, Okla.
Horace M. Evans.....	Tulane University.....	1912	R. 83 1-5	Rush Spgs. Ok.
G. P. McNaughton.....	Memphis Hosp. Med.....	1912	R. 83 9-10	Miami, Okla.
Ben. Hill Day.....	University of Oklahoma.....	1912	R. 79.9	Oklahoma City.
Pirl B. Myers.....	Am. Med. Col.....	1912	R. 84.4	Patton, Mo.
Wm. Earl Boyce.....	University of Tennessee.....	1912	R. 89.8	Lamar, Okla.
Wm. Taylor Johns.....	St. Louis Col. P. & S.....	1912	R. 83.7	Oklahoma City.
John Chester Darling.....	Northwestern.....	1912	R. 92.1	Norman, Okla.
Chas. Clarence Rose.....	University of Louisville.....	1912	R. 84.4	Atoka, Okla.
Wm. R. Brady.....	University of Colorado.....	1912	R. 85.9	Parsons, Okla.
Roy K. Goddard.....	University of Oklahoma.....	1912	R. 86.8	Oklahoma City.
John C. Johnstone.....	St. Louis University.....	1912	R. 81.3	Lawton, Okla.
Gordon A. Lillie.....	Ft. Worth S. of Med.....	1912	R. 78.3	Pawnee, Okla.
Jesse B. Lambert.....	St. Louis University.....	1912	R. 87	St. Louis, Mo.
Isham L. Cummings.....	Chicago Col. M. & S.....	1912	R. 87	Ada, Okla.
Howell Austin Scott.....	University of Nashville.....	1911	R. 79.9	Texanna, Okla.
Lee E. Parmley.....	Memphis Hosp. Med.....	1912	R. 88.3	Oklahoma City.
Geo. F. Aycock.....	University of Nashville.....	1911	R. 89.8	Texanna, Okla.
Lewis A. Stuck.....	Wisconsin Col. P. & S.....	1912	R. 82.3	Yale, Okla.
Chas. B. Jones.....	University of Louisville.....	1912	R. 86	Quanah, Tex.
Murrell Pinson.....	Vanderbilt University.....	1911	R. 85.4	Parkin, Ark.
Sylvester Doggett.....	Am. Med. Col.....	1912	R. 85.2	Mountain Park, Okla.
Garland Y. McKinney.....	University of Arkansas.....	1911	R. 75.3	Hazel, Okla.
Lee Hurt.....	St. Louis Col. P. & S.....	1912	R. 79.7	Climax Spgs., Mo
Davy L. Garrett.....	Atlanta Col. P. & S.....	1910	R. 90.4	Altus, Okla.
Elmer E. Rowley.....	Marquett University.....	1912	R. 75.3	Caney, Okla.
A. Harry Herr.....	Chicago Col. M. & S.....	1912	R. 83	Winslow, Ark.
Jas. O. Walls.....	Tulane University.....	1912	R. 80.5	Norman, Okla.
T. H. Parmley.....	Memphis Hosp. Med.....	1912	R. 83.4	Memphis, Tenn.
Benj. F. Moreland.....	University of Arkansas.....	1912	R. 73.4	Idabel, Okla.
John H. Plunkett.....	Vanderbilt University.....	1912	R. 85.4	Checotah, Okla.
Samuel E. Gayman.....	University of Oklahoma.....	1912	R. 86.2	Orlando, Okla.
Chas. P. Murphy.....	University of Oklahoma.....	1912	R. 83.2	Oklahoma City.
Jas. J. Caviness.....	Vanderbilt.....	1912	R. 82.3	Eldorado, Okla.
Chas. E. Boutros.....	St. Louis University.....	1912	R. 86.1	Enid, Okla.
Walker R. Marks.....	Chicago Col. P. & S.....	1912	R. 87.7	Vinita, Okla.
Lea J. Gillett.....	A. S. O. Kirksville.....	1912	O. 79.9	Enid, Okla.
Chas. F. Card.....	Southern M. E. Univ.....	1912	R. 80.1	Pryor, Okla.
Walter E. Stewart.....	University of Oklahoma.....	1912	R. 81.3	Norman, Okla.
John D. Justice.....	Mo. Med. Col.....	1878	R. 78.3	Waynoka, Okla.
Benj. F. Carr.....	Jefferson Med. Col.....	1886	R. 72	Mangum, Okla.
M. A. Williams.....	Howard University.....	1891	R. 73	Tulsa, Okla.

### The following applicants were licensed by reciprocity.

John E. Hampton.....	Univ. of Tenn.....	1902	Recip.	from Tennessee.
John T. McLean.....	Memphis Hosp. Med.....	1898	Recip.	from Texas.
Richard Herrick.....	Eclectic Med. Inst.....	1871	Recip.	from Texas.
Edward M. Loyd.....	Univ. of Tenn.....	1907	Recip.	from Tennessee.
Jean M. Kelley.....	A. S. O. Kirksville.....	1912	Recip.	from Osteo. Bd. of Mo.
W. R. Bowman.....	Univ. of Tenn.....	1890	Recip.	from Tennessee.
Jas. B. Gilbert.....	Miss. Med. Col.....	1912	Recip.	from Tennessee.
M. E. Daniel.....	Eclectic Med Inst.....	1888	Recip.	from Texas.
J. D. Mitchell.....	Herring Med. Col.....	1893	Recip.	from Texas.
R. O. Braswell.....	P. M. Col. of Ind.....	1901	Recip.	from Texas.
Paul M. Peck.....	Am S. of Osteo.....	1901	Recip.	from Texas.
John H. Evans.....	Tulane Univ.....	1884	Recip.	from Texas.

The following applicants failed:

No.	
2.	Hahneman Med. Col. (K.C.).1910.
3.	Meharry Med. Col.....1912.
15.	Atlanta School of Med.....1912.
18.	St. Louis Col. P. & S.....1912.
24.	Meharry Med. Col.....1912.
29.	Univ. of Okla.....1912.
33.	St. Louis Col. P. & S.....1912.
45.	Meharry Med. Col.....1912.
49.	Howard Univ.....1904.
55.	Univ. of W. Tenn.....1907.
56.	Meharry Med. Col.....1903.
57.	Col. P. & S. Ark.....1911.

Oklahoma now reciprocates in the granting of licenses for the practice of medicine, with the following states: Texas, Nebraska, Nevada, Kentucky, Tennessee, Michigan, Wisconsin, North Carolina, and West Virginia, and with the Osteopathic Boards of Missouri, Louisiana and Minnesota.

### TRACHOMA.

L. W. CRIGLER, New York (Journal A. M. A., March 30), describes trachoma as a disease of the conjunctiva in which there is a characteristic connective-tissue hyperplasia and a proliferation of lymphoid cells. The follicles formed by this proliferation tend to degenerate and become encapsulated by the new connective tissue. They become distended with fluid, push their way to the surface of the conjunctiva, degenerate and break down and the conjunctiva is replaced by scar tissue. As a result of the chronic inflammatory process other changes take place leading to a general atrophy of the lid. There is no question as to its contagiousness, but its etiology is still unknown. He speaks of the work that has been done on the so-called trachoma corpuscles or trachoma bodies, in regard to which the consensus of opinion is that they have some pathologic significance in relation to this disease, though it seems they have been found in other conditions. He especially emphasizes the fact that the disease is a chronic one, the acute malignant cases being the exception, and says it is greatly to be deplored that there is no diagnostic character to distinguish it to the general practitioner from chronic follicular conjunctivitis. We have to wait until the second or hypertrophic stage before we can make a sure diagnosis and that is often only after months. Follicular conjunctivitis tends to spontaneous recovery, leaving a normal conjunctiva. Trachoma never does. The medical treatment has not advanced during the past decade, but it cannot be said that the remedies are without effect. The treatment with nitrate of silver and copper sulphate is painful and the patient discontinues them as soon as a little relief is obtained. Relapses then occur and the disease progresses. While a good many cases of true trachoma have been arrested, Crigler thinks a too large number are so credited and that all cases that respond to expression should never be called trachoma though they present the picture of this disease for a time. He speaks of the importance of the surgical treatment, which he considers the most successful means of combating the condition. He describes the technic of combined excision and the cases in which the removal of the tarsal cartilage of the upper lid together with the overlying conjunctiva and retrotarsal fold and tarsal resection along are indicated. The former combined method has in his experience been most satisfactory.

## OFFICERS DIRECTORY, OKLAHOMA STATE MEDICAL ASSOCIATION SECTION CHAIRMEN.

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Delegates to A. M. A.—W. E. Wright, Tulsa, 1912,

E. S. Lain, Oklahoma City, 1912-1913.

J. Hutchings White, Muskogee, 1913-14.

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Eye, Ear, Nose and Throat—J. H. Barnes, Enid.

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Next Meeting—Muskogee, Severs Hotel, Oct. 7-8-9, 1912.

Address all communications to the Secretary.

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Creek		Geo. H. Wetzel, Sapulpa
Custer	Ellis Lamb, Clinton	F. S. Whitmore, Butler
Garfield	W. H. McKenzie, Enid	F. E. Diemer, Enid
Garvin	J. W. Shelton, Pauls Valley	N. H. Lindsey, Pauls Valley
Grady	Paul D. Vann, Chickasha	Martha Bledsoe, Chickasha
Greer	E. D. Collette, Mangum	R. L. Hall, Mangum
Haskell	F. B. Turner, Stigler	S. E. Mitchell, Stigler
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Pottawatomie	F. L. Carson, Shawnee	G. S. Baxter, Shawnee
Pushmataha		D. E. Guinn, Antlers
Roger Mills		J. P. Miller, Cheyenne
Rogers	T. B. Dickson, Chelsea	A. N. Lerskov, Claremore
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Sequoyah	T. F. Wood, Sallisaw	M. D. Carnell, Sallisaw
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### DISEASES OF THE HEART MUSCLE.

LEWIS J. MOORMAN, M. D. Oklahoma City, Okla.

In the average books on medicine and diagnosis, affections of the heart muscles occupy about one-tenth as much space as endocarditis, yet it is a known fact that, with the exception of the heart murmur, the symptoms and signs attributed to endocarditis are the result of changes in the heart muscle, and that the prognosis in endocarditis depends not upon the endocardial lesions, but upon the integrity of the musculature. It is also known that the treatment, if wisely conducted, is governed entirely by the condition of the heart muscle and has no effect whatever upon the endocarditis, unless it be of syphilitic origin, and the treatment specific.

Heart murmurs are frequent. Many of them go undiscovered, while many are diagnosed in individuals who seek medical advice on account of certain symptoms (as air hunger upon ordinary exertion, or slight swelling of ankles), which are not due to the endocarditis, but, being associated with a heart murmur, the one sign which thrusts itself upon the examiner, they are promptly attributed to valvular endocarditis. We know that in the great majority of

cases of endocarditis there is an associated myocarditis, and in the minds of some it is a question as to whether or not endocarditis ever exists without some degree of myocarditis. This fact has led to the mistaken idea that the myocarditis is a secondary process and the result of direct extension. This may be the case, but in the great majority it is a part of the general process which has called forth the endocarditis.

Dry or plastic pericarditis is likewise thrust upon the examiner by a to-and-fro murmur produced by the movements of the heart. Other symptoms, if present, are due to changes in the heart muscle. This is true even of the pain often associated with this condition. This being the case we must turn to the heart muscle for all the subjective and nearly all the objective symptoms and signs of organic heart disease; and in so doing we must discard much that is still found in text books under the conventional method of discussing each cardiac lesion separately and attributing to it many symptoms which really belong to associated lesions.

To interpret, clinically, the pathology of any organ we must first become acquainted with its functions. Our present understanding of the functions of the heart muscle has grown out of a long and heated controversy over the cause of the heart beat. At one time it was thought that the blood itself circulating through the chambers of the heart was responsible for the heart beat. Then anatomists and neurologists, finding ganglion cells and nerve fibers abundant in the heart muscle, paramount importance was given the neurogenic theory, which held that the heart beat originated in the ganglion cells. Gaskell's researches led to the myogenic theory, the support of which has resulted in the accumulation of knowledge which has almost revolutionized the diagnosis and treatment of cardiac affections. Gaskell demonstrates the following fundamental functions of the heart muscle-cells:

1. The power to produce a stimulus which can excite the heart to contract—stimulus production;
2. The power of being able to receive a stimulus—excitability;
3. The power of conveying a stimulus from fiber to fiber—conductivity;
4. The power to contract when stimulated—contractility;
5. The power to retain a certain amount of contraction even when the active movement has ceased—tonicity.

Mackenzie has done more than anyone else toward the clinical application of these functions. In 1893 Kent and His demonstrated a special bundle of muscle fibers leading from the right auricle to both ventricles, and Gibson, Keith, Mackenzie, Erlanger and Flack demonstrated that the special functions of excitability, contractility

and conductively depend, in large degree, upon the integrity of these special fibers—thus throwing new light upon the subject of cardiac rhythm. It is known that every function possessed by a cell in the fully developed state, however specialized it may be—nervous, muscular, or secretory—exists partially developed in the primitive cell. By a gradual process of specialization the cells of the body, equally endowed in the beginning, take on their peculiar functions, and lose those they no longer exercise. So it is with the development of the heart. Mackenzie suggests as a working hypothesis “That in the evolution of the heart muscle-fibers, certain functions of the primitive cell were retained, some of these being more developed than others—according to the duties the fibers had to perform—so that while they have come to resemble muscle fibers, they nevertheless retain in a varying degree some functions which are highly specialized in the nerve cell.”

That we may better understand the fundamental functions we consider—

1. *Stimulus production.* It is assumed that the muscle fiber secretes a material which stimulates the fibre to contract. With each diastole a sufficient store of stimulus is secreted to excite the heart to contract. With each contraction the store is exhausted, and so, in co-operation with other functions, rhythmical character is given to the accumulation and exhaustion of this material.

2. *Excitability.* The construction of the heart muscles depend upon its excitability or its power of receiving this stimulus. When the heart contracts the excitability is lost, and is gradually regained during diastole. Under normal conditions the rate and rhythm of the heart are dependent largely upon these two functions.

3. *Conductivity.* By this we understand that each cell has the power of passing the stimulus on to surrounding cells and so the stimulus is conducted from its point of origin to all parts of the heart. Like other functions of the heart conductivity is entirely abolished after it has been exercised and is gradually regained.

4. *Contractility.* This is the most evident of all the functions. The circulation is maintained by the co-ordinated contraction of all the fibers of the heart. This function, also, is exhausted after a contraction and is regained during diastole. Within certain limits, the longer the period of rest the stronger the contraction. This may be demonstrated by the size of the pulse.

5. *Tonicity.* Under normal conditions a certain degree of contraction or tone is maintained in all the muscles of the body, including those of the heart. Even during diastole the muscle fibers of the heart are not fully relaxed. Gaskell has shown that certain drugs increase or diminish the tone. Thus veratrum and digitalis prevent the relaxation of heart muscle in the frog, prolonging the



period of complete contraction and lessening the period and degree of relaxation until individual beats can hardly be distinguished. While solutions of lactic acid and masearin have the opposite effect, increasing the relaxation until the heart stands still in diastole. It is through the recognition of this function that we are able to understand some of the most significant features of heart failure. While all the fibers of the heart may be endowed with these fundamental functions, it is evident that there must be a specialization of functions, otherwise, instead of the co-ordinated movement of the different parts of the heart, all the fibers would contract at once. As it is, the functions of stimulus production and excitability are more highly developed in certain fibers about the termination of the great veins and contraction starts here and travels throughout the heart, each chamber contracting in the regular order necessary to maintain perfect circulation. If any other part of the heart becomes more excitable than the venous end, then the contraction starts there and the regular order is interrupted and heart failure may result.

At an early stage in development the heart appears as a tube at the end of which is found the sinus venosus into which the veins of the body empty. In the course of development the auricles and ventricles appear and the tube, as such, ceases to exist, but probably becomes the A. V. bundle, and the sinus venosus is incorporated in the right anricle about the termination of the great veins. It is in this tissue that the functions of stimulus production, excitability and conductivity, are highly developed, and any pathology of these fibers may disturb the rhythm and efficiency of the heart's action. It must be remembered that the fundamental functions are under the influence of the nerves supplying the heart, though not dependent upon them for their continued exercise.

Quoting Mackenzie:

"When one reflects that all the fibers of the heart are not equally endowed with the same functions, and that all the functions may not always be exposed to an equal strain, it is but reasonable to conclude that conditions may arise where they are unequally affected. As a matter of fact, this is what commonly happens, and it is an interesting and important question to consider in each case of heart failure what functions are especially at fault. The significance of this question was demonstrated when Wenkenbach showed how the irregular activity of the various parts of the heart were made manifest by certain characteristic arrhythmias.

"Following up the idea of exhanstion, or over-excitability of individual functions, I have sought to connect many of the symptoms of heart failure with these functions. While I do not say that my conclusions are invariably correct, they have led to some definite results of the very highest im-

portance, and it is along these lines that advance in our knowledge will likely follow for some time."

The graphic method of examining the heart has made possible the demonstration of many symptoms and signs which might otherwise seem to be mere assumption. So it has been demonstrated that irregularities with few exceptions (sinus irregularity and "pulsus alternans") are due to changes in the primitive tissue. That is, any disease of the heart muscle involving the tissue about the termination of the great veins or the auriculo-ventricular bundle, may cause arrhythmia by depressing or exciting the functions of stimulus production, excitability and conductivity.

The depression of *contractility* is to be recognized by the limitation of cardiac response, or the too quick exhaustion of the reserve force of the heart muscle, as shown by shortness of breath upon slight exhaustion, or a feeling of tightness across the chest upon sudden exposure to cold air or upon exertion, and sometimes, attacks of angina pectoris. The changes in the heart muscle are further evidenced by the *pulsus alternans*, the graphic expression of which shows plainly in the small pulse wave, the exhaustion of contractility, followed by a long pause during which the contractility is regained, as manifested by the large pulse wave immediately following the pause.

Failure of tonicity, means dilatation of the heart. With this explanation of dilatation we may dismiss the unsatisfactory and inadequate mechanical theory. The symptoms of dilatation are:

(1) Changes in the heart itself, as increased size, alterations in the position and character of the cardiac impulse, and the presence of murmurs.

(2) The evidence of stasis in other organs and tissues of the body, as dropsy, enlargement and tenderness of liver, and shortness of breath.

(3). Often reflex phenomena, such as hyperesthesia of the skin, breast and muscles of the left side.

With this brief and imperfect statement of the symptoms and signs arising from the disturbance of the fundamental functions of the heart muscle, and keeping in mind the possible combinations in any extensive disease of the myocardium, we may readily see what a varied symptomatology may be exhibited by any affection of the heart muscle. The clinical picture depending largely upon the extent and distribution of the pathology.

Bart, in Albutt and Rolleston's System of Medicine, says:

"In estimating the clinical phenomena dependent upon the changes wrought by myocarditis, we must not forget the hidden ancestry of the cardiovascular system, and that the heart, although in the course of evolutionary changes, highly differentiated, has not al-

together lost its primordial intrinsic function of rhythmic contraction, a function which, although in a great measure now subject to the guidance of the nervous system, is by no means dependent upon extrinsic nervous impulses. Whilst in health this measure of automatic mechanism secures a great saving of energy; in disease, on the other hand, it is very conceivable how myocardial changes of inflammatory or other source should bring about disturbances of cardiac rhythm of very grave kind and but little amenable to outside nervous control. This view furnishes us with a better insight into the cardiac defects from myocarditis than is otherwise attained. The cardiac phenomena significant of myocardial change, apart from valvulitis, are dilation and irregular action, which is an arrhythmia of contraction of the muscle from inco-ordinate action of parts no longer possessing their original homogeneity, and presenting positive interruptions or blockings of the conductive paths or areas."

The lesions of the heart muscle may be conveniently considered under the following headings:

1. Impairment Due to General Blood Conditions;
2. Impairment Due to Altered Blood Supply;
3. Impairment Due to Senile Changes;
4. Impairment of Inflammatory Origin;
5. Impairment Due to Functional Strain;
6. Tumors of the Myocardium.

*Under impairment due to general blood conditions*, we consider anemia and toxic changes. In cases of severe anemia the heart muscle becomes paler than normal and on section it is wet and flabby in appearance—fatty degeneration may result, giving rise to the flecked or streaked appearance of the inner surface of the left ventricle. In such cases there is often evidence of enlargement of the heart and relative insufficiency of the mitral valve. The pulse is quickened and the heart is peculiarly susceptible to nervous influences and physical exertion.

*Under toxic changes* we may have cloudy swelling or fatty degeneration. Cloudy swelling is very common in the course of the infectious fevers due to toxins in the blood. It may occur either with or without long continued fever. The heart muscle has a grayish-cloudy appearance and under the microscope the fibers are opaque on account of the minute granules which obscure the nuclei and striae.

Fatty degeneration is very common and is characterized by small globules of fat deposited in the muscle cell. The degeneration may be general or circumscribed. In advanced cases, especially where there is anemia, the heart muscle is pale and of a yellowish white or clay color and cuts like cheese. The most common of the general causes are, the infectious fevers, especially, diphtheria and typhoid



the anemias, as leukemia and pernicious anemia; poisons, such as phosphorus, arsenic, lead and sulphuric acid. In phosphorus poisoning, not immediately fatal, fatty degeneration of the heart is the chief source of danger. It is believed that fatty degeneration of the heart muscle may undergo repair by absorption of the fat and the formation of new muscular tissue.

*Impairment due to altered blood supply* depends chiefly upon permanent changes in the coronary arteries, and its consequences embrace the most important lesions of the heart muscle. Narrowing of the coronaries through atheroma may arise from any of the accepted causes of arterial degeneration, as age, syphilis, gout, alcoholism, physical strain, etc. The local anemia induced by such a condition may give rise to fatty degeneration which differs from that described above, in that it is much less acute and more patchy in its distribution, also, that in the process of degeneration there is more or less atrophy of the muscle fibers with the substitution of fibroid tissue (fibroid or false hypertrophy).

This substitution of fibroid tissue may serve to preserve partially the strength of the cardiac wall, but without contractile power. The size of the heart and the thickness of its walls depend chiefly upon the amount of fibroid substitution and the degree of dilation of the ventricles. This condition is most common in men after fifty years of age. The symptoms depend upon the extent of the degeneration and the regions involved. Irregularities, dilatation and limitation of cardiac response are common.

Fatty infiltration of the heart must not be confused with fatty degeneration. A certain amount of fat is normally found at the base of the heart and along the course of the coronary arteries. This is increased in fatty infiltration and fat is deposited in the interstices of the muscle fibers, compressing them and causing atrophy. This condition is met with in those of sedentary habits, with good appetites and good digestion. It is favored by indulgence in alcohol, especially, malt liquors and sweet wines, and by over-eating. Also, by chronic pulmonary conditions limiting the respiratory surface. This condition is to be suspected where there is enlargement of the heart with evidence of cardiac weakness and shortness of breath, in individuals who are stont—with full abdomens and often tender livers.

Fibroid infiltration, or interstitial myocarditis resulting from coronary obstruction, is associated with fatty degeneration. The blood supply is sufficient to maintain the overgrowth of inferior connective tissue, but not sufficient for a tissue of such activity and reparative requirements as muscle. These hearts, except some in the very old, are always large. The increased size is due both to the "false hypertrophy" and the dilatation of the cavities. This condition may be induced also by chronic congestion of the heart from mechanical obstruction of the return flow in the cardiac veins. Anything interfer-



ing with healthy respiration impedes the return flow (emphysema, cirrhosis of the lung, fibroid phthisis, and unresolved pneumonia); such congestion may result from advanced mitral disease.

Local fibroid infiltration may follow any obstruction of coronary branches, pericarditis with adhesions, or acute myocarditis. Fibroid infiltration usually represents an effort at repair and it often helps to prolong the efficiency of the heart muscle.

Here, too, we may expect a wide range of symptoms depending upon the particular functions involved. The heart is enlarged; the impulse labored, and increased in area; the heart sounds are often dull and the pulse is not well sustained.

*Aneurysm of the Heart.* This is a rare condition and difficult to recognize clinically. It is nearly always at the apex of the left ventricle and may result from any condition destroying or weakening the muscle fibers—fibrous myocarditis is the most common cause. Aneurysm may cause death by rupturing into the pericardium, or by mechanical interference with the heart's action.

Thrombosis is a frequent result of atheromatous changes and is also caused by specific arteritis. Occlusion by coagulation is most common near the origin of the coronaries, because the atheromatous changes are usually more marked here. Thrombosis deeper in the heart is usually of syphilitic origin.

Embolism of the coronaries may be due to the same conditions that give rise to embolism in the systemic vessels. The emboli may be of the fibrous type or septic, as in cases of infective endocarditis. Occlusion of a considerable branch of the coronary artery may cause fatal angina, otherwise, rapid heart failure with irregular action, shortness of breath and repeated attacks of angina.

*Impairment Due to Senile Changes.* In nearly all people after middle life there is an accumulation of hematoidin granules about the nuclei of the heart muscle cells, giving rise to the condition known as pigmentary degeneration. Atrophic changes are usually present. The atrophy of old age may be marked. Sometimes the heart is reduced to one-third its normal size. The epicardium is wrinkled and the vessels tortuous. The muscle is flabby and dark in color due to pigmentation.

*Impairment of Inflammatory Origin.* We have already described interstitial myocarditis under Fibroid Infiltration. It consists of an irritative overgrowth of the interstitial tissue of the heart, arising through circulatory disturbances, general or local, as chronic congestion of cardiac veins or obstructed coronaries, or through endocarditis or pericarditis. Myocarditis has been experimentally produced in the rabbit by intra-venous injections of Adrenalin. The changes are attributed to the mechanical strain arising from the increased blood pressure.

Parenchymatous myocarditis, which is secondary to infectious

fevers, is, according to Bart, probably a very active form of the preceding process. Leyden regards it as an acute myocarditis characterized by intermuscular nuclear proliferation and by secondary atrophic changes toward necrosis and deposition of pigment; fatty degeneration accompanies it.

Purulent myocarditis is usually secondary to infective embolism of the coronary vessels, as in pyemia and malignant endocarditis. Syphilitic myocarditis may manifest itself as a syphilitic arteritis giving rise to chronic myocarditis. Thrombosis may occur with ultimate fibrosis of the area involved, in case fatal angina does not occur. There may be gummatous formation in the cardiac wall with surrounding chronic myocarditis. Gummas most commonly occur in the ventricles or septum. They may soften or undergo fibroid change and are always surrounded by fibroid changes as a result of the chronic myocarditis.

There may be a diffuse chronic myocarditis affecting a large portion of the heart. It is possible, however, that this diffuse myocarditis originates in the fusion of scattered gummatous deposits. Sudden death, without previous recognition of the disease, has terminated most of the recorded cases of gumma of the heart. In cases with evidences of chronic myocarditis, and the absence from the history of rheumatism, gout, alcoholism or strain, we are justified in thinking of syphilis, especially, if there is a specific history or collateral syphilitic lesions.

*Impairment Due to Functional Strain.* Hypertrophy of the heart may result from a prolonged effort of the heart muscle to overcome increased resistance to the circulation as in atheroma or Bright's Disease, or to compensate some valvular defect. Such hypertrophy is, for a time, successful, but ultimately through degeneration of the muscle and the consequent impairment of the fundamental functions, heart failure ensues.

Hypertrophy due to coronary obstruction, and pericarditis with adhesions, is not real hypertrophy, but due to fibroid changes secondary to chronic interstitial myocarditis. There is an idiopathic or simple hypertrophy due to excessive cardiac exercise, muscular exertion. It is claimed by good authorities, especially the French, that the heart becomes hypertrophied during pregnancy. This hypertrophy is attributed to the enlarged uterus and toxic products. Acute strain of the heart may mean sudden over distention. In the presence of obstructive valve lesions such strain may induce over-distention to the suppression of function, and sudden death.

*Tumors of the Myocardium.* New growths in the heart are rare. Hektoen in 1893 reported about 110 cases recorded in the Surgeon's office at Washington and in the Index Medicus. Berthelsen, about the same time, reports thirty published cases of primary new-growths of heart, as follows: Sarcoma, 9; Myxoma, 7; Fibroma, 6; Carcinoma,

3; Lipoma, 2; Syphilitic, 2; Cyst, 1. About four-fifths of the reported cases have been males and the tumors were found in the left heart or septum in about two-thirds of the cases. It must be remembered that syphilitic growths seldom amount to tumors and are much more frequent than indicated above. Secondary growths are not common, although both carcinoma and sarcoma have been found post-mortem. Secondary melanotic growths are often found in general melanosis.

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## FRACTURE OF THE SKULL --- NOTES OF FIFTEEN RECENT CASES.

DR. ROSS GROSSHART, Tulsa, Okla.

In these cases of fracture of the skull are included all classes, from a simple linear fracture of the inner table, to a crushing injury to the vault. I omit the causes of fracture, as they are all due to traumatism, and ask your attention, more particularly to the indications for operation and the end results of treatment.

Alcoholism, sunstroke, uraemia and concussion are to be differentiated from fracture, and of these, concussion will be the most frequent and most difficult to determine. Considering the intricate merging of the symptoms of the two conditions—and often you find both present in the same patient—the correct diagnosis will be made in direct proportion to the experience, close observation, and the faculty of deduction of the attendant.

Cases of concussion are not operative, but trephining will not injure your patient, so if in doubt, operate.

By no means allow your patient to go more than seventy-two hours without improvement and still think it a case of concussion, for if you do, you will, perhaps, sign a death certificate and not be sure

of the truth of the statement therein. When a patient presents the history of trauma to the skull and the symptoms are unconsciousness, vomiting, the reflexes gone and the classical train of brain symptoms; there is no depression of the bones, extravasation of blood, nor hemorrhage from the eye, nose or ear, you are justified in waiting twenty-four to forty-eight hours unless more positive symptoms develop; but if there is no improvement at the end of that period, operate and you will find a depressed fracture or a blood clot.

Should you find the train of symptoms above described, together with extravasation of blood into the soft tissues, away from the site of the injury, operate—and start your incision in the neighborhood of the discoloration and extend it around to the site of injury.

If you are unable to demonstrate a fracture, trephine over the artery supplying the injured region. Do not hesitate to expose enough of the skull to be positive as to the presence of a depressed fracture, or simple fracture, if one exists. If still in doubt, use a small trephine and then turn back a bone flap, by using a Devilbiss rongeur or chisels and explore well. That part of your flap, to which the periosteum remains attached, will grow back quickly, but large areas of bone may be removed completely, without untoward results. Drainage should be maintained for twenty-four hours or longer and if the hemorrhage is sub-dural and it is necessary to open the dura, the same rule still holds good.

Have a care with your scalp wound, that you do not needlessly crush it with hemostats or tie it full of catgut (and get infection), or carelessly close the wound and let your hemorrhage from it trickle back under the skull. A clot on the brain produces certain bad results, irrespective of how it originated.

The following cases have been treated in the P. and S. Hospital, Tulsa, by Doctor Butler and myself, recently, and cover rather a wide range for the limited number.

(1)—A man thirty-four years old received a crushing blow on top of his head, caused by a heavy pipe wrench falling on him from a distance of seventy feet.

A compound, comminuted fracture resulted, which nearly cost the patient his life from hemorrhage. Twenty-four hours later, when he reached the hospital, it was seen that the longitudinal sinus was involved and preparation was made for a terrific hemorrhage, when the depressed bones were elevated.

The anticipation was realized as soon as the first fragment was elevated. Bleeding was controlled by the introduction of a finger to compress the sinus and the flow later controlled by carefully tamponing gauze strips around the finger as it was withdrawn. The gauze was removed the fourth day without bleeding and the scalp wound then closed. Consciousness was restored in a short time and the hemiplegia showed improvement within twelve hours. This man had only



partial co-ordination in his leg, following his recovery, and later visited the Mayo clinic, where he again underwent a decompression, but without results. He is about his business again (a driller), but has a jerky, high knee action in the leg and is unable to safely step backwards, quickly. Otherwise, he is entirely normal.

(2)—A case still under observation, in a man twenty-nine years old, who had a fracture of the inner table only, from being sand-bagged, in which both branches of the middle meningeal artery was broken, resulting in an enormous clot, which was being added to by the still bleeding vessels, was cleared up in a short time by the removal of the clots and stopping the hemorrhage. He developed a complete ptosis of the eye lid on the side of the injury and this irritation of the third nerve was caused by the injury deep in the brain substance, but he has recovered. I might add that this man was syphilitic, and was put on generous doses of K. I., but whether that influenced the progress or not, is a question.

(3)—A man twenty-six years old, was struck by falling timbers on the back of his head. A recital of his symptoms would not enable you to say whether he had a fracture or concussion. His attending physician did not believe it a fracture, but with no improvement in forty-eight hours, consent was obtained to operate, in spite of the protest of the attendant and a trephine opening half an inch to the left and above the transverse sinus, revealed a clot which necessitated the removal of a large area of bone for its removal. Convalescence was rapid and smooth.

(4)—In a very similar case, a man twenty-two years old, was knocked down, falling on the sidewalk and striking the back of his head.

It was repeatedly urged that the case should be operated on, after forty-eight hours, but the family deferring to the opinion of the attending physician, refused consent. The patient was in a semi-comatose condition for two weeks, after which he was violent and extremely delirious, at times, for several days. He then became quieter and was removed to his home. After three months he resumed his position as Auditor, and was apparently well, leading us to think perhaps we were mistaken about a hemorrhage, but on the third day after beginning work he fell from his stool and later was removed to his home in a distant state, where a few weeks later he died from softening of the brain, caused by pressure of a clot in the fossi occipitalis.

(5)—Slipping on the icy sidewalk, a man sixty-two years old, fell heavily backwards, striking the back of his head. He was able to arise and walk some eighty feet to his room. He made little complaint for eighteen hours, after which he complained with pain in his head and gradually mental symptoms, loss of co-ordination, and at the end of sixty hours, lapsed into unconsciousness. Those in authority refused him an operation and three months later, when he died of softening, it

was demonstrated that he had only a slight fracture of the inner table of the occipital bone, opening a small vessel, the slow leak from which explained the delayed, alarming symptoms. Both of these men could have been saved by operation.

(6)—A blow from a beer bottle, received an inch to the left and three inches anteriorly, from the center of the top of the head, rendered a man aged fifty-one, unconscious for a short time only. He was not confined to his bed and apparently was not much the worse for his injury. Three years later he suffered great pain, dizziness, vertigo, etc., the symptoms coming on very gradually, and within three months from the first symptoms, he had a stroke of paralysis, from which he had been partially recovered when brought to the hospital. A diagnosis of compression was made and on turning back a bone flap over the site of his old injury an area of bone as large as a silver dollar was found very much thickened and rough, and so densely adherent to the dura that difficulty was experienced in freeing it. This man recovered slowly, but his improvement was progressive and permanent and at this time, four months after operation, he is all right.

(7)—A girl twelve years old suffered a fracture that extended from the crown to the orbit, and laterally from the crown through the temporal bone to the base. Seen six hours after the accident, unconscious, ecchymosis into the eye and bleeding from the ear. Trephined, removing piece of bone two inches square, extended the wound to base of skull, removed clots. Also enlarged the opening made by the lateral fracture, removed clots which were extra-dural. The opening in the dura at place of first trephining was sewed up, except for drainage, which consisted of iodoform gauze tape, which was also used at lower angle of wound at base. Patient regained consciousness as soon as the anaesthetic was over and left hospital in two weeks. Has had no symptoms since.

(8)—Male, aged forty, was struck on the head by a brick. Saw him forty-eight hours afterwards, when he was being treated for concussion. The wound was opened and a trephine opening showed a rupture of the middle meningeal artery. A clot one inch thick by three inches in breadth, was removed, the bleeding stopped by a gauze tampon and the wound drained by gauze tape. Patient regained consciousness immediately. There were no complications and the wound healed by first intention.

(9)—On the opposite side of the head from the wound received, a man thirty-three years old, developed an ecchymosis into the eye, twelve hours after the injury. His head had been sewed up. He was not unconscious, would answer when spoken to, but had a very slow pulse and was vomiting occasionally. There was no depression. Taking the cue from the extravasation, he was trephined and a linear fracture three inches long, extending from the orbit to above the ear, was found. The clots were removed, the wound drained and the patient was rational as soon as he came from the ether. Went home in ten days.

(10)—A sixty-year-old man received a blow on the occiput and was treated for concussion for three weeks. When I saw the case I trephined and removed a subdural clot that weighed two ounces. The wound was closed without drainage. The patient did well for six days, when he began to have pain in the head, which became more and more severe and he died in convulsions on the twelfth day. I think I should have drained this case.

(11)—An oil field employe was struck by a falling derrick and his skull crushed. He was unconscious, had a slow pulse and dilated pupils. On exposing the skull, it was found necessary to remove portions of the frontal, temporal and parietal bones, measuring two and one-half by three inches. The dura was lacerated and one-half ounce of brain substance removed, closed and cleaned, and the wound closed over gauze strips, that were removed the third day, and the patient sent home at the end of two weeks, well. This man, too, regained consciousness as soon as the effects of the anaesthetic was over.

(12)—A young man, twenty-one years old, was kicked by a horse when he was eight years old. There was loss of brain substance and the boy was thought fatally hurt. He recovered, however, and developed epilepsy six years later.

His operation consisted of trephining, breaking up all adhesions of the dura and the removal of a small cyst on the dura. This opening in the dura was closed with Cargyle membrane and a bone flap taken from the outer table of his skull, was turned into the bone opening, made by the horse's foot, and the trephine, and the wound closed, with a small drain down to the Cargyle membrane. Three years since the operation, and he has had no epileptic seizures whatever. I report this case, not because it is recent, but because it illustrates the necessity of finding out "where you are at" in fractures.

(13)—Girl, aged seven. Punctured wound on right side in the edge of her brain. Bone driven into the brain. Enlarged the wound, removed the spicula of bone, together with some hair. Some brain substance lost. Drained for forty-eight hours in the brain wound and for seventy-two hours in the scalp. Wound granulated. Recovery complete. This patient was never unconscious, but had a slow pulse and her pupils were dilated.

(14)—A girl, aged seven, received a blow from a falling board which laid open the scalp and showed a depressed fracture of the parietal bone. There were no symptoms of fracture, whatever, except the fracture itself, the depressed bone was elevated, a wick of gauze stopped a slow leak in a small vessel and there was no symptoms of severe injury ever developed. She was about the halls of the hospital the following day and refused to stay in bed.

(15)—In undertaking to investigate an empty metal oil tank, by the use of a lighted match, a young man had the upper portion of the frontal bone on the right side caved in. He was more than twenty



hours getting to the hospital, and when the interior of the skull was explored, a very large clot had formed in anterior fossa, but the bleeding had stopped. This man got up within two minutes after he was hurt and walked a mile to his boarding place.

When he entered the hospital he was mentally bright, suffered little pain, his reflexes were normal—in fact, the only subjective symptoms of brain injury was a slow pulse and respiration.

Had it not been apparent to even a non-professional observer, that the skull was fractured, neither of the two last causes referred to would have reached the table until hours or days later, when grave evidence of serious injury, supervened. You don't have a textbook picture in every case of skull fracture. The line of demarcation is not broad, neither is the trail blazed, but following safely, an indistinct trail marks the master of woodcraft.

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## DISCUSSION

DR. C. J. FISHMAN, Oklahoma City.

There is one little point I want to say in regard to the term "concussion." A little simple procedure will frequently develop it in the differentiation between concussion and hemorrhage. No one can tell whether or not there has been a disturbance, a mechanical disturbance of the nerve fibres or a pressure from hemorrhage after the patient is injured, and there is some degree of unconsciousness.

In February, I read a paper before the First District Medical Society, in Oklahoma City, on the subject of "Lumbar Puncture," and at that time I brought out a point which I think is useful today, and that is this:

That in cases that are supposed to be concussions of the brain, a lumbar puncture, which is a simple procedure, harmless to the patient, and of great use to the operator, will frequently disclose hemorrhage in the fluid, and that gives you an indication of the rupture of some vessel somewhere in the cerebro-spinal system. More particularly if the blood is a dark blood, you are very sure that the blood has been there for some time. Lambert, of New York, made the statement that in cases of brain injuries, if the lumbar puncture needle was used, there would be very few cases of brain concussion, and most of them would be classed as brain hemorrhages. Some would need to be operated and some would not. I am not going into the discussion of these details, but the term "brain concussion" would become much less used and brain hemorrhage would become much broader defined than it is now.

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DR. LANDRUM, Altus.

We have just had fifteen cases recited by the essayist, from the standpoint of the surgeon. We have not heard from any of the



patients themselves, yet. If you don't mind, I will recite the case of the patient—my own person.

I had the misfortune to have a basal fracture, myself. I had hemorrhage from the ear, from the throat, dilation of the left pupil, slight paralysis of the right arm and right leg. I was getting out of my buggy and missed the step and fell about sixteen inches. My head was about sixteen inches from the dust bed of the road when I had my fall. (It is immaterial how I came to fall.) That is the last I remember, when my head was within sixteen inches of the ground, until I awoke in front of the fire station and the boys had deluged me with water from the hose. They told me it was about three-quarters of an hour after my fall. That is important, because that situation is usually given in the history of these cases. I remember further telling them to telephone my wife that I wasn't hurt much, and that I would come home in a closed carriage, instead of on a stretcher. They put me in the carriage, and I remember being taken home and being very sick and vomiting out of the window, and at the same time feeling a sense of humiliation at vomiting along the street and being taken home in a cab. I have a hazy recollection of walking in at the front gate and being laid down on the bed. I don't remember anything else distinctly for sixteen days after that. They say I was completely delirious during that sixteen days, and immediately after they put me down my pulse dropped to ten, twelve and twenty and my lips were blue, my eyes were sunken and they thought I was dead. I recovered from this, however, with some vomiting during the night, and I have very fleeting recollections of unimportant incidents during that sixteen days. Have no collected memory of what happened during that time, and in three weeks I lost about sixty pounds. My normal weight was 160 and I was depreciated to 100 pounds. I recovered so I could be at my office in about five weeks from that date. The doctors thought it was a very clear case of fracture of the base; one wanted to trephine and the others argued against it. I don't know whether the trephining should have been done, but they did not do it. They gave me a pretty severe purging and some counter irritants at the back of the neck, ice pack to the scalp, and that is about all, waiting for developments. I made complete recovery.

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DR. JOLLY, Oklahoma City.

The importance of fractures of the skull is not the fracture itself, but its complications. I was in hopes that the Doctor would dwell more on the symptoms that require operation. Now, there is only one symptom, I mean one condition that we can usually benefit by operation and that is the pressure symptom.

Of course, we have to differentiate between concussion, contusion and compression. I remember when I studied medicine, that differentiation was very easy. In one case we had contracted pupils, concus-

cussion and contusion, and in the other one dilation. That doesn't mean so much now. In concussion and contusion we have no pressure symptoms, and we cannot benefit these cases by operation, except it might be in a depressed fracture of the skull, relieving that. The pressure symptoms that can be remedied by an operation are a depressed fracture, hemorrhage and edema. In extradural hemorrhage there is usually an interval between the injury and the compression symptoms. One way we usually make the diagnosis of hemorrhage from the middle meningeal artery. The interval between the injury and pressure symptoms. Intra-cerebral and sub-dural hemorrhage pressure symptoms are immediate and continuous after the accident. The edema usually comes from contusions and may be some time after the accident. I have seen cases nearly a week after the accident with pressure symptoms from contusion. Our diagnosis of pressure symptoms is increased blood pressure, full bounding, slow pulse. In concussion we get the opposite, rapid pulse. Another symptom is choked disc, that is always reliable. We can get early pressure symptoms by use of the ophthalmoscope tortuosity of retinal vessels, and later, of course, the complete choked disc. I suppose the Doctor has means of localizing these injuries, I see most of his cases where he cut down on the clot, so he had to do that before operation. If we have a depressed fracture, we know where to enter the skull. Also in extradural hemorrhage, but there are other pressure symptoms that it is very difficult to know where to open the skull. Frequently these are basal injuries, and the pressure is at the base of the brain, so opening the skull would not relieve these cases. You have to get down somewhere at the base and drain them. Of course, there are a few of us who know how to localize these injuries. I am sure I am not an expert myself, but I think in some cases that would be very necessary in brain surgery. Some of these injuries are plain, where we have a depressed fracture, we know of course, where to enter the skull. If we have got an extradural hemorrhage we know where to find the meningeal artery, but pressure in the brain substance itself, and at the base sometimes is very difficult to localize.

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DR. REED, Oklahoma City.

This subject of brain surgery and surgery of the head furnishes us a rather sad chapter. Practically everything has been attempted about the head, in order to attempt to make improvements, which would compare favorably with the surgery of other regions, and we have practically come to the conclusion that surgery of the head is indicated in remarkably few instances, where we can say we are sure of getting results.

Fracture of the skull does no harm, per se. The fact that you may diagnose a fracture positively does not indicate that operation must be done at all. Then the fact that you have a depression

does not necessarily indicate that an operation is indicated. Also the fact that you have a slight hemorrhage does not indicate that you must operate. For we don't possess methods of approaching the brain which are themselves without danger. I think I can say that there is quite a large percentage of head cases that are really harmed in attempts at doing good. Particularly do I lay stress upon the fact that attempts at brain surgery in old fractures always results in harm to the patient. I say always, I will limit it by this remark: That they never do good. Who, in this house, for instance, has seen depressed fracture followed by epilepsy in a year or two years, who has attempted to raise a depressed fracture of that long standing and seen any benefit come from it, except a very temporary one? Haven't we seen them have temporary relief only and then get worse than they were previous to the operation? It has been my experience and observation that surgery of the head is beneficial when done in time, but it must be done soon after the injury.

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DR. C. M. AMENT, Tulsa.

I don't agree with Doctor Reed's assertions and I am heartily in accord with Doctor Grossheart's paper, in this respect. I believe I am a conservative man in surgery, but I don't believe there is any place in surgery that calls for operation in every instance as much as there is in depressed fractures of the skull. I don't believe there is an exception, there might be. I think that every depressed fracture should be removed. Why? If you leave a depressed fracture in many instances it will be followed by epilepsy, and once an epilepsy is developed, it soon becomes no longer logical, but focal, and all the operations in Christendom won't help it. I wish to accord with Doctor Grossheart's statement that all depressed fractures should be operated on.

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DR. GROSSHART, (Closing.)

Thank you, gentlemen, for the discussion, and also to the gentlemen for showing me how to apply the ligature. In answer to the doctor over here, who had the fracture which I deem from what he says, and from the history and diagnosis of himself, was at the base of the brain, he had a fracture and probably a slight exudate, one place in the brain if you don't get any infection that generally drains, as near drainage as can be gotten any place in the skull. And this recovery that he made was due to that one condition.

Probably if he will recollect back, the physicians gave him some iodide of potash. The only explanation I can make of that, while I believe, in that condition, had he had a trephine of the posterior part of the brain, and drainage established right behind the ear, that he would have gotten well and would not have been delirious and unconscious as long as he was.



In regard to Doctor Reed's comment upon the paper. That he thought there was doubt that fractures should be attacked, we will say, take up first depressed fractures. The patient may retain his mental condition, it may not be paralyzed, and with the exception of epilepsy that follows these conditions there would be no use to operate. But this being one of the great causes of epilepsy and one of a train of symptoms that follow these conditions, while the trephining and the necessary elevating amounts to nothing practically, to the patient, yet you do good not only from barring the probability of an epilepsy condition being established, but by rendering yourself and your patient this benefit, that you know whether or not there has been leakage under there and you have a blood clot. In one of the cases recited, where there was a post mortem held upon this individual, if you remember the case that died, that his fracture had been a very slight fracture, if you remember. But he had had quite a hemorrhage. It went on and on, and apparently got back so that he could go to work again. Then his trouble came on him after he fell from his chair and died from softening. That is the case that after it was let alone the man died, lost his life from neglect, either from his people, or from the surgeons, or the doctors, whosoever's fault it was.

As to Dr. Jolley's remarks in regard to concussion and fractures with pressure, if I understand him, he made a differentiation between the two by the character of the pulse; the pressure pulse was slow and the concussion pulse was rapid. My observation has been, I may not have seen any cases of concussion, but my observation has been of those cases that I have seen, that invariably, if you have a disturbed condition of the brain, that the pulses are invariably slow. Your reflexes and conditions that you get under these different pressure symptoms are diagnosed and exert themselves according to the location in the brain that they occur, from the simple fact that the anatomical condition of the brain is so arranged that I am not going to go into the detail of it, there are certain localities in the brain; they have the reflex areas, the mental areas, the speech center and so forth, and these conditions, if you watch your cases closely you will see the symptom of your condition as it arises and the one that is nearest to the point of your pressure, or where the most pressure is exerted, will be the symptom that is exaggerated. You may have an unconscious condition, but if you will watch the case closely, and watch the reflexes, you will catch the conditions, if you know the conditions, you can go to your anatomy and study it up and locate a great many conditions and know where to operate when you wouldn't know, maybe, off the reel. I thank you.



## SARCOMA OF KIDNEY IN INFANTS---REPORTS OF CASE.

DR. T. H. MCCARLEY, Atoka, Okla.

This paper is presented not as one covering the many features suggested by its title, for to do this would cause it to savor strongly of text-book articles on the subject. It is intended, rather, to call your attention to this comparatively rare condition from the standpoint of the difficulties of diagnosis, as illustrated by the case to be reported, for it is the rare pathological condition that we are slow to recognize and apt to class as one more frequently met.

Malignant tumors of the kidney in infants and children are perhaps ten times as frequent as the benign and, of the malignant, sarcomata are found five or six times as often as carcinomata. The majority occur in early childhood, about half of them during the first two years of life. In a few cases they are congenital.

Tumor, hematuria, and cachexia are regarded as the principal symptoms.

"The tumor is usually first noticed. It is in most cases discovered in the loin, but grows forward toward the median line. Its surface may be lobulated and irregular or quite smooth; and although solid, it is sometimes so soft as to give an obscure sensation of fluctuation. It may grow to an enormous size, causing displacement of the liver, spleen, intestines and lung. The progress of the growth is usually rapid, so that from the size of a fist, the tumor may grow in the course of five or six months so as to fill the abdomen. By careful palpation it may be found—certainly when the tumor is small—that, although it may be quite freely movable, its attachment is near the lumbar spine. Aspiration may show blood, but more frequently the result is negative."\*

The quantity of blood in the urine is often so small as to be discovered only by the microscope, but in a few cases it is microscopic in amount and the first symptom noticed.

Cachexia and pressure effects increase steadily with the growth of the tumor.

Hydronephrosis, dermoid cyst of the ovary, retroperitoneal sarcoma, tumors of the liver and spleen are to be eliminated in making a diagnosis. This last—enlargement of the spleen—was supposed by myself and consultants to be the correct diagnosis in the case of I am about to report.

On March 19, 1911, Mrs. J. R. was delivered by me of a ten-pound girl, her sixth child. Her two boys and other three girls are living and well. History of child's mother and father is that of continuous

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\*Holt, "Infancy and Childhood," 3rd Edition, Page 672.

good health, and both maternal and paternal grandparents were free from cancer, tuberculosis and syphilis. At three months the child weighed seventeen pounds and was apparently healthy.

When the baby was about this age the mother noticed "a cake in the side" as she expressed it, which was attributed to a fall that occurred three or four weeks before. I was called and found the child well nourished and presenting no constitutional symptoms whatever. A smooth tumor of firm consistency completely filled the left hypochondrium, extending anteriorly to the median line and inferiorly to a line drawn through the anterior-superior iliac spines. On deep palpation a notch was discovered about the middle of the inferior border. All other abdominal organs were normal in location and size. Diagnosis of enlarged spleen, cause undetermined, was made. Though the symptom-complex of malaria was not present, antimalarial treatment was begun, and several smears of blood were made for microscopic examination.

Examination of blood revealed no plasmodia, hemoglobin 80, red cells decreased, mild leucocytosis, with the large lymphocytes predominating and a few myelocytes present. This blood picture being typical of pseudo-lymphatic anemia of infants, and the clinical symptoms suggestive of it, this diagnosis was made.

Hygienic measures were insisted upon. Arsenic, strychnine and iron were prescribed and continued until August fifth, when I began the administration of sodium caccodylate in three-quarter-grain doses daily and continued it for five weeks. It was given on alternate days only when arsenical effects were manifest. While this course was being given, the weight of the child and size of the tumor remained stationary or nearly so.

Treatment was discontinued and I did not see the child again for three weeks, when all symptoms were decidedly worse. Another course of sodium caccodylate was given, and during the time of its administration the wasting was less rapid. Operation was advised as the only hope of relief. On December 4th, a colitis developed. This was relieved within a few days, but left the patient much weaker and weighing only thirteen pounds.

The father very much surprised me a few days later by saying that he had decided to discontinue all medical treatment and cure the child by faith. From then until death closed the scene, March 19th, 1912, I saw the child two or three times. She took a great deal of food and digested it remarkably well. Toward the last emaciation was the most marked I have ever seen. The tumor nearly filled the abdominal cavity, perforating ulcers of corneae occurred, the skin literally clung to the bones, altogether making the little one a gruesome picture indeed.

I had requested the father to allow me the privilege of an autopsy, which he did. Because it revealed the futility of it all, I

have not given in detail every step in the management of the case. The autopsy showed the tumor to be adherent to the descending colon and some coils of the small gut. A little dissecting made the revelation that it was a tumor of the kidney and not of the spleen, which normal in size and apparently healthy, was lying in contact with it. The upper third of the right kidney was white and swollen, but no involvement of glands or other organs was discovered.

The tumor weighed one pound and fourteen ounces, was encapsulated and smooth, except for two protuberances on the under



surface, each about as large as a split lemon. It proved to be a small, round cell sarcoma.

It is only fair to say that a number of excellent men saw the case with me, all called the tumor enlarged spleen and some advised operation.

The lessons which this case teach, and which seem to me to make its report worth while, are:

First—Sarcoma of kidney in the infant may attain great size before any symptom of it is observed.

Second—Physical examination may be very misleading in diagnosing abdominal tumors. In this case the two protuberances formed a notch, which exactly simulated the splenic notch. \*Butler says:

\*—*Diagnostics of Internal Medicine*, Second Edition, Page 512.



"If in doubt as to whether or not a tumor in the left renal region involves the kidney and is not an enlarged spleen, the position of the descending colon should be ascertained by percussion, inflating it if necessary by pumping in air through a large catheter or colon tube. If the colon lies in front of the tumor it is renal and not splenic." In this case the colon was not in front of the tumor. This was demonstrated at autopsy.

Third—A careful microscopic examination of the blood may be misleading, as the blood picture of almost any one of the anemias may be present secondary to malignancy.

Fourth—Blood was not macroscopically present in the urine at any one of the many times that I examined the napkins. A microscopic urinalysis should have been made, which would possibly have led to a correct diagnosis.

Fifth—The undisputed temporary beneficial effect of sodium caccodylate is suggestive.

Sixth—An operation should have been done as soon as the tumor was discovered, though I believe that it was even then too late to save the life of the infant by operative procedure.

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### **PYLOROSPASM.**

DR. W. M. TAYLOR, Oklahoma City, Okla.

Both the condition of which I speak, pylorospasm, and the one very closely allied to it, namely hypertrophic pyloric stenosis, may be designated under the caption of partial stenosis of the pylorus. Complete stenosis or atresia is rare and this discourse does not touch on it.

The two conditions of hypertrophic pyloric stenosis and pylorospasm according to Pfoumder's idea, stand in a close genetic relation to each other, but practically they are very different. The case which I shall report is one of spastic stenosis, but the two conditions being so closely allied I shall also briefly go over the subject of the organic or hypertrophic pyloric stenosis.

Probably a case of pure hypertrophic pyloric stenosis never recovers except relieved by an operation; but on the other hand, a case of pylorospasm rarely ends in death.

According to those who have had opportunity to observe this condition surgically, there is a hypertrophy of the circular muscular fibers about the pylorus; also, to a lesser degree, of the longitudinal ones producing an enlarged pylorus varying in size from a hazel nut to a hickory nut. This tumor is frequently palpable if patient is anesthetized.

Resulting from this condition there is a narrowing of the pyloric opening with often a compensatory development of the muscular



coats of the stomach, due to the effort on the part of the stomach to force food through a narrow orifice. In others there may be a thinning of the muscular coat and dilations; the stomach border reaching down to the umbilicus.

The symptoms of pylorospasm are those of the hypertrophic pyloric stenosis, except they are not so pronounced and recur after intervals or little or no disturbance, but may follow errors in diet or any acute irritation of gastric mucosa.

In hypertrophic pyloric stenosis the vomiting comes on usually, earlier in life. More frequently in breast-fed babies. Dr. Graham, of Philadelphia, reports a case of pylorospasm ending fatally in a boy six and one-half years old. The vomiting occurs soon after every feeding; or, at times a feeding may be retained till a second is taken and then all vomited together.

The vomitus is free from bile and is usually forcibly ejected; abdomen is sunken and epigastrium prominent. The other symptoms are those due to vomiting.

Spasmodic pain is nearly always present. It was constantly present in my case, the child being old enough to designate location of pain. The child shows rapid effect of loss of bodily fluids.

The contractions of wall of the stomach, or the peristaltic waves, from left to right may be seen even when the child is quiet and for some time after food has been given.

Now if we have these symptoms, though in a mild degree, gradually subsiding, followed by periods of apparently no disturbance, and setting in again usually accompanied by digestive disturbance, the clinical picture looks to be that of the spasmodic type.

At the beginning we cannot always distinguish the one from the other; but by careful management and observing the history and course of the attack we should be able to distinguish them in time to follow the proper line of treatment which in the one is medical; in the other, surgical.

#### HISTORY OF CASE.

Rndolph K. . . ., two years old; mother healthy, father very nervous temperament; general condition good, weight at birth, eight pounds. Was breast-fed till one year of age. Has always been well except for attacks of vomiting of various periods of duration even while on breast milk alone. These attacks came on lasting for perhaps one or two days in which some feedings were retained, others vomited with apparently little distress, but not entirely free from pain.

At the age of fourteen months baby had an attack of vomiting and in the vomitus rice, undigested was found, which had been fed thirty-six hours previous. With this attack he had some diarrhoea

and slight temperature lasting one day. Minute doses of calomel were given and absolute rest for stomach prescribed. No other prominent symptoms present except pain in epigastric region. This attack subsided, but at times for several days vomiting followed taking of food even though a very light diet was prescribed.

Several periods of slight indisposition occurred following this for I was consulted over the phone only; always these attacks were associated with vomiting.

On February 8, after being fed an unusual amount of breakfast he began vomiting, which continued at intervals of every few minutes for the whole day, and always immediately following the taking of water. This continued for twenty-four hours, after which the vomiting was not so frequent but continued the taking of liquid. The vomited material was very acid but contained no bile. In character the vomiting was not projectile as is often described in these cases, but came up as though regurgitated at times. He complained of pain before each attack of vomiting. The bowels moved three times during the second twenty-four hours, consisting of dark green mucus. Physical examination showed a well developed baby—fontanelle normal—heart and lungs normal and reflexes normal.

On the third day condition about the same, except that emaciation was beginning to show. The stomach could be well outlined and was decidedly enlarged. Hypogastric region soft and flat, apparently empty. Dr. Horace Reed saw the case with me at this time, and after giving baby two ounces of water then blowing the breath gently over or flicking the skin over the stomach, the peristaltic waves from left to right were seen very distinctly first preceeding the vomiting of water, which followed in a few minutes. These same contractions were seen when the child was quiet. This symptom was seen on several occasions afterwards.

Pain was quite constant for three days, complained of especially just before vomiting, which was usually followed by a period of relief and sleep.

No tumor could be made out over the pylorus. I did not anesthetize the child for making the examination. Temperature was never over  $100\frac{1}{2}$ . On third day bowels only moved following enema.

The symptoms and physical signs connected with the history point in a fairly clear way to a pyloric obstruction. Now the question is whether the condition is that of a true pyloric stenosis or a spasmodic stenosis? The symptoms of the two conditions are very similar, but, usually of milder type in pylarosposun.

The differentiation is difficult and Pfandler says the differences in many cases are in degree only; yet the symptoms of pyloro spasm appear for the most part with digestive disturbance or accompanied by them and intermit in a very decided way. Simple

pyloric spasm never ends in death. So the history and course of this case bear out the same conclusion.

The duration of this recent attack was four days, after which the symptoms gradually subsided under the following plan of treatment:

All liquids by mouth were suspended. High saline irrigation, 4%, were given every four hours and effort made to have water retained as long as possible. He seemed to take this saline up as though he were a sponge. The urine was increased in quantity, child more comfortable and vomiting becoming less frequent. Hot applications over the epigastrium for the pain which he complained of considerably.

The first nourishment after vomiting subsided was peptonized milk diluted to one-third strength with a thin barley water in amounts of one ounce at three-hour intervals. This was increased in strength as the child's condition improved.

Since this attack which occurred in February of this year, he has had two mild attacks of vomiting lasting perhaps twelve hours. But, with prompt treatment and withdrawal of all food, both have quickly subsided. I find that this particular child seems to have less trouble by feeding him at three-hour intervals and, of course, by this plan lessening the amount of food at each feeding.

I believe in the etiology of this condition—that of pylorospasm—in this particular case, history, symptoms and course will bear out the belief that we had to begin with a narrowing of the pylorus of a rather mild degree; and that whenever gastric irritability was produced by digestive disturbances we had the evidence of pyloric spasm.

It has been pointed out by several observers that the hyperacidity which was always present in this case may be another element in producing pyloric spasm.

Two of the German observers advocate the rectal injection of saline solution by the drop method, thereby not only supplying the lost fluids to the tissues, but for the reason that the sodium chloride taken up lessens the secretion of the acid in the stomach.

I feel that pylorospasm is not a surgical disease, at any rate until other therapeutic means have been carefully tried.

Hypertrophic pyloric stenosis is surgical, and when diagnosis is clear operative relief is the only one which promises anything and it should be performed early before the child is exhausted.

The choice of operations with the majority of operators seems to be posterior gastro-enterostomy and pyloroplasty.

## PREVENTIVE GYNECOLOGY.

A. B. LEEDS, Chickasha, Oklahoma.

In this discussion, the merits or demerits of any particular operation will not be discussed, neither will surgical intervention as a relief for gynecological conditions be decried, but rather consideration will be given to the value and benefits of the prevention of these conditions which so often unrecognized, progress until prompt and heroic surgical intervention alone offers any hope and frequently that is of no avail.

A few of the difficulties of diagnosis and some of the mistakes frequently made and their causes will be casually mentioned so that perhaps a timely lesson may be drawn from this discussion.

The brilliant results obtained, in the last few years, in the field of preventive medicine and surgery is not only a credit but a living monument to the untiring efforts and heroism of our profession.

Yet, as great and perhaps as fertile field of usefulness is the one suggested by the title of this paper.

Following the advent and thorough understanding of asepsis and antisepsis, it was but natural that our efforts should be in the direction of the surgical relief of gynecological conditions, up to that time, practically unknown and little understood.

As a result of our efforts, in this direction, not only was a vast store of useful knowledge obtained, concerning the results of many pathological conditions, heretofore vaguely guessed at, but there was developed an insistent inquiry as to the cause of these different conditions.

Having to consider not only the intricate arrangement of these organs themselves and their intimate association with the rest of the human economy but also the effects of environment, daily and perhaps hourly influences, as well as our complex civilization upon the usual physiologic changes and epochs, we were confronted with a complexity, in the ills of the sexual organs and life of woman, that, at first sight, was appalling.

But, let it be said to the credit of our profession, that the task of unraveling this tangled skein was undertaken with that spirit of acknowledging no defeat which is always rewarded with results.

In the elaboration of our technique and the investigation of the etiology of these conditions, many interesting facts have been enunciated.

Some of these facts which will be mentioned are pertinent and frequent sources of error and not being thoroughly understood, act not only as a hinderance to the prevention of these conditions, but also mar and modify an otherwise intelligent conception of the treatment and ease at hand.



With a not entirely rational conception of the sensorial manifestations of the diseases of the female sexual organs together with an added difficulty from the direct sensation of pain being lacking and the pain often being reflected from an initial source of irritation, we have a fruitful field of very difficult and often impossible diagnosis.

Often a thorough and careful examination will show that a pain in the hip-joint or knee-joint has been frequently reflected from an irritated or inflamed nerve or nerves in the ovaries or uterus and this is not strange when we consider that the sacral ganglion and the lower lumbar ganglion of the sympathetic nerve are connected with the great sciatic nerve and partly with the obturator and these same ganglion likewise are connected with the nerves proceeding through the broad ligament to the uterus and ovaries.

In the true pelvis, we often find the cecum and frequently when it is distended with gas, we have vague pains which are mistaken for signs of ovarian cysts and kindred ailments.

Yet further away, we occasionally find that a painful anal fistula and its resultant abnormal distention of the colon and cecum, with gas, often gives signs and symptoms which are mistaken for ovaritis, appendicitis and in older women, for cancer.

Functional disturbances and the more obscure sexual neuroses, together with the proximity of the appendix and sexual organs and their proneness to inflammation calls for an ever vigilant care in considering these cases.

A contrast of the many unnecessary operations that can be avoided, by a correct location of the pain in the lower abdomen, in hysterical women, with the unexpected pathological conditions of a serious nature demonstrated, frequently, by an operation, in young women who have been treated by their parents and physicians as hysterical, demonstrates an urgent need for extreme watchfulness in these cases.

Often the etiological factor of mental disturbance as a primary cause of many of these conditions is either overlooked or not given the consideration it justly deserves.

The promulgation and enforcement of our wonderful sanitary laws for the benefit of public health is accomplishing great good, but as great and equally important benefit could be obtained by a rational teaching and training of the young girls as to the effects of not only the necessary physiological changes, but also the untoward results of pathological conditions due to their neglect and abuse, of the young women as to the woes saved by the correction of irrational habits and practices; of the women as to the benefits of a compliance with intelligent instruction of the physiologic results of married life and the importance of a careful and common-sense handling of the pregnant women also the devastating effects of the preventable

accidents of the puerperium and the scourge of gonorrheal and venereal infection.

Will not our consideration and treatment of the female organism, so complex in nature, be rational and ideal and will we not hasten the intelligent prevention of many of these conditions, if we give these cases the same consideration the piano tuner gives the piano, with its multitudinous parts?

He first considers the exterior, sees if the frame or case is level and well balanced, takes careful survey of its surroundings, as to exposure, climate, usage and the demands which will be made upon the instrument, its age and the probable care that will be given this complex mechanism, and then gives his advice accordingly.

Then carefully and cautiously he begins the examination of the interior or vital part. First, the sounding board or frame work, then the keys, springs, key-board and pedal action and finally he undertakes the principal task, that of regulating the tension of each individual string.

How often and how thoroughly he considers each string from every phase; from one he takes a small piece, from another a larger piece and another he lengthens out, then a new string is given the place of an old one, worn and weak.

Finally with every string at just the right pitch and tension, he begins to harmonize the chords so that eventually there is perfect harmony and not a suspicion of a discord.

One piano is easily tuned, just a slight change here and there, and with a little timely advice this trouble will be prevented from occurring again; and with another, it has to be patiently and laboriously practically rebuilt and frequently not satisfactorily.

The classical music, with its rich perfect harmony, wears the piano the least, while the harum-scarum rag-time music jars the very life out of an instrument.

Does not the harmonious, satisfied, contented and healthful living with all its lack of discord, wear out a woman the least, while what does the harum-scarum rag-time way of living, first this way, then that way, do for the life and health of a woman?

Is not a great similarity instantly apparent between the homely comparison of the piano and woman?

Which gives his complex organism the most consideration?

Do we?

An elderly lady, whose hair was sprinkled with gray, and whose every movement demonstrated an even poise and well balanced system sat playing an old piano, whose very case showed an elegance and richness and whose pedal action, keys and tone of the strings showed that time had dealt kindly with these two.

And from the combination of the two, there resulted the sweet, even and soft melody, the gladness, pathos and harmony that brought peace and contentment to the hearers.

Shall we, in obtaining our diagnosis and pursuing the treatment of these cases, remember this illustration and consider well the symptom-complex, the family and personal previous history as well as the physical signs so that like the piano tuner we will have done our work, in each individual case, well.

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## THE TREATMENT OF CONSTIPATION.

F. L. HUGHSON, M. D., Vinita, Okla.

The one subject that interests the physician more than any other, and one which we as physicians and surgeons come in contact more frequently is constipation. It is found everywhere, in all countries, about alike, and is a vexing subject to practitioners in the young as well as the old. While it seems to be a simple thing, and a condition that is easily overcome temporarily, yet its treatment to perfect a cure, is by no means an easy one. Its causes are so varied among the masses that its difficulty in diagnosis, as to the causes, in different individuals becomes more and more apparent, and it may even exist without a cause. It may be inherited.

It will be very difficult to get this before you without first giving a short anatomical description of the organs involved, and no physician can treat a case of constipation without knowing the intricate parts of the alimentary canal, and especially the lower bowel and rectum. The small intestine is twenty feet in length, and holds about twelve pints. Has four coats, serous, muscular, sub-mucous and mucous. In the mucous coat we have the Goblet cells, Brunner glands, Crypts of Lieberkuhn, Villi, Valvulae Conniventes, Solitary glands, and Peyers patches.

All of these have their special parts to play in the all-important act of digestion. From the Ileocecal valve to the Anus is that part called the large intestine. Its length is about six feet.

It is larger than the former and has thicker walls, sacculated contour, and has peculiarly arranged longitudinal bands. It is in the large intestine and the rectum that we find the causes for constipation. The loss of the constricting power of the circular fibers in the sacculations or cups. The almost right angles that the bowels make at the flexures, the hepatic, splenic and sigmoid. The changes in tissue formation at the juncture of the descending colon and the rectum, the folds, or valves, as they are more properly called, of Houston, and last, but not least, are the different diseases peculiar to the rectum, as hemorrhoids, fistulas, fissures, ulcers, etc.,

which cause so much distress at defecation, that the patient puts off the desire until there is no more sensation of feces in the rectum.

There are many causes for constipation, among the most important are dislocations of the intestines, either congenital or acquired, causing kinks or flexions, these kinks are often caused by the accumulation of fecal material in the colon and may be the cause of complete obstruction. An intermingling of inhibitory and accelerating nerves are found in the circular muscles of the bowels, and as a bolus comes in contact with the sacculated portion, the muscles immediately below the bolus are inhibited or relaxed, while those immediately above are accelerated or contracted, thus by force of the muscles the residue is carried down through the bowel thus if the nervous system is at a low ebb, and improperly fed by the accompanying blood vessels the inhibitory and the acceleratory nerves are weakened in function and their movements retarded, and constipation results, also as the food passes through the small intestines it loses a greater portion of its watery substance until in the form of feces it reaches the sigmoid flexure; now if the contractility of the muscles in the lower bowel and rectum is in any way weakened constipation results. Of the minor causes I will name a few, as tea drinking, too little water taken into the system, a lack of exercise, causing weak abdominal muscles; a deficient secretion of bile. It has been my observation that a diet of meat and eggs will eventually cause habitual constipation, as it is nearly all converted, leaving so small a quantity of feces, a retarded peristalsis, improper food, incomplete mastication of the food, indifference to the calls of nature, nervous influences, or a diseased nervous system, a continuous use of some drugs, and local obstruction.

Now the descending colon receives its nerve supply from the sympathetic chain, which starts from the spinal cord, in the lumbar nerves, and thence to the mesenteric ganglia, from this by fibers running to the hypo-gastric nerves and plexus, these are inhibitory nerves.

The motor nerves leave the cord from the second to the fourth lumbar, and enter into the pelvis plexus. These control the same as above.

It is upon the sensory nerves that the undigested food, together with the debris and secretions from the alimentary tract, produce the sensation and desire to defecate, although other pathological conditions may cause this same desire. An inhibition of these nerve sensations is a great factor in the cause of constipation. Then we have the rectal valves, or valves of Houston, these are oblique, semi-lunar folds projecting into the lumen of the bowel and it is in these valves that a residue of feces gather and are another great factor in the cause of constipation.



The principal symptoms are headache, malaise, muscular weakness, giddiness, mental depression, insomnia, bad temper, alternate attacks of diarrhea and constipation, etc.

As a rule, there is very little attention paid to a case of constipation, until some complication sets up and then a patient realizes that something must be done. Only a few days ago a patient came into my office for treatment, her bowels had not been evacuated for over a week, and she was not alarmed about that, as she said it was a common occurrence, she going for days at a time without a bowel movement. Now these things all lead to fistula, proctitis, hemorrhoids, or ischio-rectal abscesses.

From the great number of cases of chronic constipation among those suffering from psychical disorders, such as melancholia, neurasthenia, etc., it is evident that the central nervous system exerts more or less influence over the motility of the colon. In the treatment of this trouble one must observe regular habits, retire at a certain hour, eat his meals regularly, take a certain amount of exercise, the best time to do this is upon rising in the early morning, before breakfast, and the regular attendance upon the calls of nature immediately after eating breakfast. If no attention is paid to a constipation, a catarrhal condition is soon set up in the mucosa of the intestine, after this catarrhal condition becomes somewhat stationary, we have a hypertonicity of the musculature of the intestine, this is what we call a spastic constipation, spasm of the transverse colon occurs causing a retention of feces, with resulting fermentation, colic follows, and in severe cases large amounts of mucous are passed. In this form the stool is of small caliber, and at times ribbon-shaped, the patient complains of violent contractions of the intestines with a mucus diarrhoea, we now have an absorption of sulphureted hydrogen gas, or fecal ptomaines, it is through the absorption of these toxic products that causes the many symptoms such as headaches, temporary loss of memory, or convulsions. Whenever we have the feces passed in hard masses covered by a layer of flaky mucous, we then have an irritation of the mucous membrane, somewhere in the colon and when the irritation is severe then we have alternate attacks of diarrhea and constipation.

In all kidney symptoms and where I think it necessary to make a test of urine, I regulate the bowels before securing the urine, as I have found that pathologic urine may be the result of toxic actions from poisons generated in the intestines.

I have found that the prescribing of drugs, such as anti-constipation compounds and intestinal tonics are all unsatisfactory in the treatment of constipation. You may relieve the bowel of its contents only to have to repeat it in a few days. I do not approve of purging the bowel in this trouble, but there are times that one stool a

day is not enough to secure a clean bowel, it may move off the principal part of the contents, but the valves in the rectum may be filled and may not be emptied until a thorough purge is given.

There are a great many patients who come to us for treatment, who have taken laxatives so long that only the most drastic purgative will make any impression whatever, not having a bowel movement once in several days, their entire system overloaded with retained poisons, auto-infection plainly written upon their countenance, and their general resisting power so lowered, that they readily become a prey to any one of numerous diseases. They have gone from one physician to another, usually to be given the same form of treatment, a drastic purging of the colon.

It is on this account that so many of our patients fall into the hands of osteopaths or chiropracts, simply a neglect of one of our greatest curative methods, massage. This has done more to build up those fellows, for they get results and especially in these cases of chronic constipation. A lapse of physiologic function always precedes the onset of most infectious diseases, the bowel movement has not been frequent enough to carry off the poisons naturally eliminated through that avenue, and not only the infectious diseases but a great many of the skin affections, which invariably are relieved by a thorough cleaning out of the alimentary canal.

Ebstein recently reported subsidence of symptoms of exophthalmic goiter in four cases under treatment of chronic constipation by means of large enemas of oil. He is convinced that auto-intoxication from chronic constipation has an injurious effect on the thyroid, and when the source of these toxins is dried up the symptoms subside.

In a case of atonic constipation, where the normal muscular force is lost, there is a lack of normal irritability, in these case mechanical treatment is often best, but better to use an oil injection before beginning massage, then knead the bowel the entire length of the colon, the oil loosening up the scybala, penetrates and softens them, then follow with an enema of hot water and soap if the bowel is not moved freely without it. I am not a believer of the daily use of the enema. I have seen a great deal of harm result from its daily use, a thorough massage of the liver is also good, as it stimulates the bile ducts to action and causes a free flow of that all-important secretion, the bile. The chief feature of the massage is not to expel the contents of the bowel, but to stimulate peristalsis by mechanical irritation. Inability of the bowel to empty itself depends on a disturbance of some part of the mechanism of defecation. We may have a constipation due to a lesion of the mucosa of some part of the canal, as in a chronic catarrh of the intestines, we do know that we have this condition due to the irritating effect of the impacted fecal masses upon the intestinal mucosa, In muscular insufficiency without an in-

flammatory condition, stimulating treatment is indicated, strychnine, quinine and a general tonic treatment.

A glass of water immediately upon rising in the morning, is a great thing for some people, as I have said before, one of the greatest things in the cure of constipation is the establishment of regularity of the bowel movement, an attempt at exactly the same hour every day to evacuate the bowels even though at first unsuccessful, followed up persistently, will form a habit. The electric vibrator is a much used instrument at the present time, but care must be taken not to dwell too long over the same area, the applicator must be kept moving in small circles along the line of the colon from cecum to rectum, repeated eight or ten times, too long stimulation over one area will retard peristalsis.

We often find young children with whom castoria, easter oil, and daily enemas have been used until the rectum has lost its tone, and the medicine given has no effect any longer, we give a few grains of calomel in broken doses, which move the bowels but only temporarily, if this is not kept up from time to time, auto-intoxication takes place, thus setting up a serious condition ending in an attack of vomiting, high fever and cholera infantum, and death. The season is fast approaching when the most serious results follow the above named conditions. Exclude milk from the diet, use sugar and butter on the cereals, which should constitute the principle foods. A child four or five years old may have raw and cooked fruits, baked potatoes, poultry, etc. On several children I have found it expedient to use olive oil treatment, using as much as an ounce placed in the rectum through a rubber catheter, eight inches in length. This I would do each night, carrying this procedure out for at least two weeks or a month or until I felt sure the child was cured, which usually took that length of time.

A person suffering from constipation should drink eight or nine glasses of water a day, or plenty of buttermilk, fruit juices, etc.

As a diet I would recommend the following: corn bread, graham bread, most any vegetables, prunes, apples raw or cooked. Avoid pork, eggs, milk, pastries, cakes, tea, etc.

As a great help in the treatment of chronic constipation, I would recommend a pint or two of hot water with a teaspoonful of common salt to the pint, to be taken the first thing in the morning on an empty stomach. Sip it from a spoon, take your time, but have it hot. I have found phenolphthalin one to eight grains on retiring to act nicely.



### DR. FISHMAN'S BERLIN LETTER.

Berlin, Germany, September 27th, 1912.

Since the time medical science has been placed upon a more or less rational and scientific basis, particularly with the advent of pathological anatomy, the strides have been rapid with an accelerated degree. Within the more recent years, the newer discoveries in all branches of fundamental sciences have at the same time carried with their development, great advances in clinical aspects of diseases as well. And this is the aspect in which we are most interested.

The true sciences which are associated with medicine, such as anatomy, chemistry, etc., cannot change to a very great extent, except in-as-much as the bearing they may have upon clinical medicine will induce workers in these branches to look at these fields from a new view-point. The associated sciences have on the other hand, made great progress. The study of pathological anatomy is continued with great eagerness and any point which might influence a clinical advance is quickly followed up and studied most minutely.

Physiological chemistry, because of its influence upon the study of the less-known diseases, belonging to the group of general metabolic diseases, has particularly shown great advances. For example: The study of the chronic joint affections, gout and adiposity is gradually being placed upon a plane where it is necessary to know much of the patient's excretory and secretory powers in order to study the individual cases from a rational point of view. These diseases of metabolism when properly classified and rationally treated by physiological methods respond splendidly to treatment.

It is surprising to see to what extent the X-Ray is being used in the diagnosis of internal diseases. Sometimes, in the clinics, one imagines that diagnosis is never established without showing an X-Ray picture of the case or part in question. and as a matter of fact, the aid that a well-taken and well-interpreted Roentgen picture will give to a case is absolutely invaluable.

An apical tuberculosis is distinctly visible by fluoroscopic examination, while the physical signs are found still uncertain by any of the known methods. A patient is transilluminated for many other chest conditions. The location of the heart, its size, form, etc., are determined accurately and promptly by this means and in large hospitals, it is used almost as a routine measure, the various chronic valvular diseases are easily recognized by the size, form and location of the heart as seen through the fluoroscope. Upon the radiographic control, the older methods of percussion have been entirely superseded by a newer and much more accurate one.

The greatest advances in this aid to diagnosis have been in stomach work. It is astounding to note how much can be learned of the actual anatomical and pathological condition in the gastro-



intestinal track by means of the X-Ray. In the diagnosis of intestinal conditions, there have been rapid strides. The functional tests for intestinal digestion are particularly interesting, in-as-much as they are rapidly bringing the classification and treatment of intestinal affections upon a basis that is purely rational. Therapeutic results in this way have improved correspondingly with the betterment of the minute diagnostic points and the development of a clearly understood Intestinal Pathology is well under way.

In infant feeding, Finklestein's casein milk has become very popular and the results in his clinic are exceedingly good. It is a marked improvement upon the older point of view in which the proteid was reduced to a minimum because of its supposed toxic effect upon the child and the deficiency in this food-stuff was made up by increasing the fat content, much to the detriment of the patient and to the perplexity of the doctor. In this newer method the pendulum has swung far over to the opposite side. It is, however, true that children fed upon this mixture get along exceedingly well and most of them not only take on weight, but improve in general as well. Much attention is paid to the stool of feeding cases and the food formulae are controlled almost exclusively by the findings therein. In the metabolism of children, careful study has taught the use of the value of the salt contents of infant food mixtures so that attention to modification in this direction is also associated with improved conditions.

In some of the surgical clinics local anaesthesia is the rule, no matter whether it is simply a finger amputation or a major laparotomy. The hypodermic needle with the cocaine derivatives are always in evidence, and it is not unusual to see many successive major operations without a single case in which a general anaesthetic is used. The personal feelings of patients in the European clinics is not as carefully considered as is in our country. This accounts for a certain amount of the widespread use of local anaesthesia in these clinics. In urinary surgery the use of the urethral catheter with the functional renal tests are constantly being used and considerable is learned from these methods of examination. Together with the X-Ray, these diagnostic investigations upon the urinary tract reduce the errors in kidney diagnosis to a minimum.

The Wasserman test is being used to a greater extent than ever, not only for the diagnosis of luetic conditions particularly in medicine, but also to determine the stage of syphilitic infection and as a control on the treatment of this disease. The present state of the therapy of syphilitic conditions, I shall reserve for future communication. Prof. Lange of the Weichelman Clinic has recently introduced a new test for cerebral spinal fluid, by means of colloidal gold. He claims to be able to differentiate an early from a late syph-

ilitic infection as well as to establish the specific diagnosis by this method. This test has great possibilities and with his abundant material it will soon be placed upon a working basis or be entirely discarded. The results of his investigations are being watched with great eagerness.

The progress in serum diagnosis along other lines and the problems in immunity are being given considerable attention and much is hoped for in the way of specific therapy as a result of these investigations.

C. J. FISHMAN.

## THE OKLAHOMA RECIPROCITY AGREEMENT.

The State Board of Medical Examiners of Oklahoma and the State Board of Medical Examiners of the State of New Mexico Do Hereby Agree to Reciprocate Medical Licenses upon the Following Basis:

### RULE NUMBER ONE.

Art. 1. (a) Each of the Boards agree to recognize licenses or certificates issued to practitioners of medicine, in Oklahoma subsequent to November 16th, 1907; in.....subsequent to....., upon a basis of a written examination in subjects stipulated in their respective laws, subject to the following provisions:

That the applicant must meet every requirement as to preliminary education.

That the applicant must be a graduate of a college recognized as in good standing, upon the date of his or her graduation, by the Medical Examining Board of the state in which reciprocity is asked.

That the general average of the applicant, attained in said examination shall not be less than 75 per cent, and not less than 50 per cent in any one subject, and it is further agreed that the latter per cent shall not be accepted in more than one subject.

(b) The various subjects which may be included in the above may be arranged by either board to suit its convenience, provided that the answers shall be rated upon a scale of one hundred for each subject.

(c) If subdivision (a) of this article should fail to include one or more subjects stipulated in their respective laws, each Board reserves the right to require a supplementary examination in said subjects and the rating awarded thereon shall be added to those attained at a former examination in their respective states in order to determine the general average. This provision refers and applies to such subjects as upon which the respective laws may not be uniform.

(d) It is further agreed that no one legalized upon examination within the above limits, or within any other period, as an undergraduate, who is still an undergraduate at the time of making application for reciprocity, will be endorsed or accepted.

(e) It is further agreed that applicants are not eligible to reciprocal privileges unless they have practiced for at least one year immediately preceding their application, in the state from which they desire to reciprocate.

Art. 2. An applicant applying for reciprocal recognition by either Board shall execute a written application upon the official form adopted by the Board and all particulars therein required must be verified and certified to the Secretary of the Board issuing the original certificate. The applicant shall also file a recent photograph of himself together with a certification of good moral character, professional standing, and identification signed by the President or Secretary, or both, of the County or State Society in whose jurisdiction he may reside.

Art. 3. All applicants for reciprocal recognition by either Board shall be required to make a sworn statement of the number and date of each examination taken by him prior to date of his reciprocal application, together with the ratings obtained thereon at each; also a statement as to all places where he has practiced, the character of the practice engaged in, (general, special, or itinerant) and the length of time so engaged in each and whether or not any certificate issued to him has ever been suspended or revoked.

Art. 4. All applicants for reciprocal recognition must conform to the legal requirements in force in the reciprocating state.

Art. 5. Each Board shall make an annual inspection of all medical colleges within its own jurisdiction and determine the standing thereof, but the right is reserved by both to inspect or investigate all medical colleges, and if necessary to cite evidence why the Board in whose jurisdiction such colleges are located should revise its findings.

Art. 6. No medical college located within the jurisdiction of either Board party to this agreement, shall be recognized as in good standing by the other until so declared by the Board having jurisdiction.

Art. 7. In order to obtain recognition by either Board party to this agreement, medical colleges must conform to the schedule of minimum requirements pertaining to college curriculum and equipment, and to the requirements pertaining to the preliminary educational qualifications of applicants for admission to the medical course, prescribed and adopted by the American Confederation of Reciprocating, Examining and Licensing Medical Boards, and the National College Organizations of represented schools upon respective Boards.

#### QUALIFICATION NUMBER TWO.

Reciprocity under this rule will be subject to the discretion of the Reciprocating Committee of respective Boards, strictly. The application of all belonging to this class, in addition to the endorsement provided for in the customary application blank, must secure and attach to application a personal endorsement of the Secretary, President, or some one member of respective Boards, as to personal



morality, integrity and all-around professional desirability and fitness.

The foregoing agreement, executed in duplicate, shall be in full force and effect on and after the date of signing of the Presidents and Secretaries of the respective Boards, and may be cancelled by either Board at the expiration of thirty days after written notice thereof by either Board party thereto.

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## EDITORIAL

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### ETHICAL BEHAVIOR.

We occasionally receive letters asking an opinion as to the ethics of certain acts of physicians and to properly answer such letters requires for interpretation a knowledge of existing conditions.

Ethical conduct may be said to be the conduct of the rank and file of the physicians of that particular community and any unusual departure of action from the usual action of physicians of that neighborhood by a physician may be properly called unethical. For instance, in certain portions of the state it is perfectly proper for physicians to carry the small professional cards in their local papers, but it is improper to do so unless most of them do likewise. It is certainly improper for a physician to countenance the writing up of operations and cases in his local paper without reference to the custom prevailing. It is wrong to do so, even if it is generally practiced, which is usually not the case.

Some members of the medical profession have a mania almost for publicity and seek it at every opportunity and oft times they are simply unfortunate in their lack of taste and good breeding and their ignorance of propriety and more can be done by gentle raillery from the hands of their professional brothers than by any other method in the cure of this class.

It may be taken as a safe rule that whatever one hesitates to do in the presence of his brother physician he certainly should not do under other conditions and it should be a constantly remembered rule to make no statement of a physician to the laity unless it be carefully weighed and then it might not be forgotten that a statement by a physician is subject to more distortion than can be imagined. A statement concerning prior treatment by another physician to a patient is probably subject to more misinterpretation than all others, due solely to the fact that it is often impossible for the patient to understand the conversation and remember to repeat it properly afterward, so they had best not be made if one is apprehensive of the result. A case is on record where a patient travelled from Kansas City to St. Louis consulting an oculist, the report

stating that the St. Louis physician told the man that his Kansas City physician had ruined his eyes. The man went home, hunted up his former physician and murdered him—an outcome probably the result of a careless remark.

The legal profession constantly remark on the jealousy in our profession and point to the comparative freedom of it in theirs. They overlook just this difference—they face their rivals and colleagues in open court and each act is subject to close inspection by the other side while ours is often made in the privacy of the office or the home. If we had more consultation and if our cases were subject to the close inspection of our rivals we would have fewer misunderstandings. This is well borne out by the almost universal rule that where physicians are thrown together the question of ethics rarely arises and they are nearly always close friends.

We might do well to throw away all our code of ethics and substitute the Golden Rule.

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### NEOSALVARSAN

This is the trade name for a new preparation of Salvarsan the result of experiment number 914 by the justly celebrated Ehrlich and has advantages over its predecessor which entitle it to immediate consideration by the profession.

Neosalvarsan dissolves readily in water at room temperature, forming a very unstable solution which may be readily precipitated if the water is not either distilled or thoroughly boiled or if it contains an excess of mineral salts. The water used should not be hot, but as above stated—room temperature. The resulting solution is neutral to litmus and is preferably administered intravenously and has the advantage of a great reduction in bulk, requiring only 25 Cc. of freshly distilled water for each administration. For intramuscular injection 3 Cc. is sufficient to form a solution and when given in this manner is said to produce none of the objectionable symptoms of pain and possibly sloughing as salvarsan sometimes did.

Observers are very enthusiastic over the action of this preparation and those syphilographers formerly using salvarsan have taken very kindly to the new drug.

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### THE DRUGS WE NEED

Under this caption Dr. Oliver T. Osborne of Yale Medical School delivered himself of some opinions at the Atlantic City meeting (see Journal A. M. A., September 28, 1912) which should deserve consideration at the hands of all physicians who prescribe drugs.

Disclaiming that he was a therapeutic Nihilist in any sense, he points out that many of the preparations or drugs we use are

either inert in the quantities given or not as good as some other member of the same class and that there should be no second and third choice drugs, but we should use the best one every time the indications point to a need for it. The argument is one of the most sensible ever written and while, of course it was opposed by those who thought there should be no arbitrary restriction, a deduction not warranted by close reading of the paper, yet the general ideas outlined are so good that they are almost undisputable.

The principal trend of the discussion of the paper was that it was necessary to teach the use of the different drugs in order to comply with the demands of many of the State examining boards and that the young physician had to be taught much that was not needed.

It is too true that we are being overloaded with drugs whose virtues are extolled often for commercial purposes solely and when tried are found to be useless or nearly so. There is too much of the detail man walking into the office and telling the physician about materia medica and too little of the physician making his own deductions from observation and study. A great many of the preparations left by the detail man have only one virtue, they are pleasant to take. Theoretically the tonic so universally used, iron, quinine and strychnine phosphate should be more active in a fluid preparation than otherwise, but one has only to use the pure drugs to be convinced of the fact that his own combination in dry powder is best and soon to understand that efficiency has been sacrificed for pleasantness.

A study of Osborne's article will cause one to believe that we can dispense with many of the drugs we use and get the same or better results by the process of elimination.

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### CONFERENCE OF STATE SECRETARIES.

One of the most important meetings since the reorganization of the American Medical Association, at St. Paul, in 1901, was the Conference of the Secretaries of State Societies, called by the Committee on Uniform Regulation of Membership, at the Association headquarters, Chicago, October 23 and 24. This committee was appointed in 1908, in accordance with a recommendation made in the Secretary's report for the year. At the Atlantic City session, last June, the committee summarized its reports for the last four years, and recommended that a conference of state secretaries be authorized to consider the entire question of membership conditions in the county, state and national organizations. This recommendation was referred to the Board of trustees and a conference between the committee and state secretaries was authorized by the Board of trustees, to be held at the same time as the October meeting of the board. Appropria-

tions were made for paying the expenses of all state secretaries who attended the meeting. The conference was called to order at 10:30 a. m., Wednesday, October 23, at the Association building in Chicago, by Dr. Thomas McDavitt, secretary of the Minnesota State Medical Association and chairman of the Committee on Uniform Regulation of Membership.

#### THE ATTENDANCE

Thirty-eight states were represented, the roll showing the following in attendance:

Dr. W. W. Watkins, Phoenix, Ariz.  
Dr. C. P. Meriwether, Little Rock, Ark.  
Dr. Philip Mills Jones, San Francisco, Cal.  
Dr. G. W. K. Forrest, Wilmington, Del.  
Dr. W. C. Lyle, Augusta, Ga.  
Dr. E. E. Maxey, Boise, Ida.  
Dr. E. W. Weis, Ottawa, Ill.  
Dr. Charles N. Combs, Terre Haute, Ind.  
Dr. J. W. Osborn, Des Moines, Iowa.  
Dr. L. R. DeBuys, New Orleans, La.  
Dr. W. B. Monlton, Portland, Maine.  
Dr. W. S. Gardner, Baltimore, Md.  
Dr. H. D. Arnold, Boston, Mass.  
Dr. Wilfrid Haughey, Battle Creek, Mich.  
Dr. Thomas McDavitt, St. Paul, Minn.  
Dr. E. F. Howard, Vicksburg, Miss.  
Dr. E. J. Goodwin, St. Louis, Mo.  
Dr. H. D. Kistler, Butte, Mont.  
Dr. Joseph M. Aikin, Omaha, Neb.  
Dr. Martin A. Robison, Reno, Nev.  
Dr. D. E. Sullivan, Concord, N. H.  
Dr. Thomas N. Gray, East Orange, N. J.  
Dr. R. E. McBride, Las Cruces, N. Mex.  
Dr. John Ferrell, Raleigh, N. C.  
Dr. H. J. Rowe, Casselton, N. Dak.  
Dr. J. H. J. Upham, Columbus, Ohio.  
Dr. Claude A. Thompson, Muskogee, Okla.  
Dr. M. B. Marcellus, Portland, Ore.  
Dr. C. L. Stevens, Athens, Pa.  
Dr. J. Perkins, Providence, R. I.  
Dr. Edgar A. Hines, Seneca, S. C.  
Dr. Perry Bromberg, Nashville, Tenn.  
Dr. H. Taylor, Fort Worth, Texas.  
Dr. W. B. Ewing, Salt Lake City, Utah.  
Dr. C. H. Beecher, Burlington, Vt.  
Dr. Grant Calhoun, Seattle, Wash.  
Dr. Charles S. Sheldon, Madison, Wis.  
Dr. W. H. Roberts, Sheridan, Wyo.



No representatives were sent from Alabama, Colorado, Connecticut, District of Columbia, Florida, Kansas, Kentucky, New York, South Dakota, Virginia and West Virginia. No effort was made to secure the attendance of the secretaries of the Hawaiian Territorial Medical Society, Medical Association of the Isthmian Canal Zone or the Philippine Islands Medical Society, as these secretaries were too far removed from the place of meeting to make it possible for them to attend.

#### THE PROGRAM

The following program was carried out:

1. Call to order, Dr. Thomas McDavitt.
2. History and Development of Membership in the American Medical Association and Its Component Parts, Dr. F. R. Green.
3. Some of the Difficulties of the Present Situation, Dr. A. R. Craig.
4. Remedies Proposed by the Committee, Dr. Thomas McDavitt.

#### DISCUSSION

A general discussion of membership regulation was conducted under the following heads:

1. Fiscal Year. Should the fiscal year coincide with the calendar year? Should the fiscal year be the same in all county and state societies?
2. Should membership expire automatically at the end of the calendar year, and a new roster for each county and state society be made with the beginning of each year?
3. When should membership reports from county secretaries to state secretaries be due?
4. Should the dues of new members, joining after the first of the year, be prorated for the remainder of the year?
5. Should an admission fee be required in addition to the annual dues?
6. Should uniform application blanks, receipt blanks, and membership and transfer cards be adopted?
7. Should constituent state associations hold charters from the American Medical Association?
8. Should a uniform plan for the transfer of members be adopted?

In addition to the above Dr. George H. Simmons, editor and general manager, discussed the question of membership in the American Medical Association, and the changes in name proposed by the Board of Trustees.

#### REPORT OF THE COMMITTEE ON RECOMMENDATIONS

After two days' discussion it was evident that the secretaries

present were agreed as to the advisability of a uniform fiscal year for all parts of the organization, to coincide with the calendar year, and that they favored the expiration of membership at the end of each year and a complete revision of membership rolls at the beginning of each year. The committee on recommendations, consisting of Dr. E. J. Goodwin, Missouri State Medical Association; Dr. Wilfrid Haughey, Michigan State Medical Association; Dr. Perry Bromberg, Tennessee State Medical Association; Dr. William S. Gardner, Medical and Chirurgical Faculty of Maryland, and Dr. F. R. Green, secretary of the committee and of the Council on Health and Public Instruction, brought in a report recommending the adoption of provisions on these two points, and that all other points be deferred for further consideration. The report of the committee follows:

The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all state associations which have not already adopted this provision bring this matter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in component societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessment for the current year not later than March 31. State societies desiring to do so may provide a shorter period.

3. The recommendation regarding the third question under discussion is covered by our recommendation of the second.

4. Regarding the prorating of dues, we recommend that this be made optional with each component society.

5. Regarding an admission fee for membership we recommend that this be made optional with component societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable, as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of Delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent state associations.

8. We recognize the desirability and advantage of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purpose of organization; it therefore recommends that future conferences of this character be held.

The report of the committee was unanimously adopted by a rising vote. It was also moved and carried that the secretary be requested to send copies of the report to each state secretary and to each state journal, and that the proceedings of the conference, as published in the *Bulletin*, be furnished to each state secretary desiring them, in sufficient quantities to send one to each member of the state association. After a vote of thanks to the Board of trustees for making this conference possible by the appropriation, the conference adjourned.

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### PERSONAL AND GENERAL NEWS.

Dr. George A. Kilpatrick of Wilburton is in Boston doing special work at the Harvard Medical School and will remain there until January.

Dr. R. R. Smith, Muskogee, is in Chicago doing special work along Genito-urinary lines at the Alexian Brothers Hospital.

Dr. Fred H. Clark, El Reno, attended the meeting of the Mississippi Valley Medical Society at Chicago in October.

Dr. Millington Smith, Oklahoma City, attended the meeting of the Association of American Railway Surgeons and the clinics preceeding the meeting held in Chicago in October.

Dr. Claude Thompson, Muskogee, attended the meeting of State Secretaries held in Chicago, October 23rd and 24th and the Clinics of the city for ten days.

The many friends of Dr. J. E. Gilcreest of Gainesville, Texas, will be pleased to know that he recently successfully underwent an operation for gall stones and is now back at his usual work. While Dr. Gilcreest is not a member of our Association he is well known to many of us and especially to the physicians of the southern part of the state who will be glad to know of his recovery.

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### COTTON COUNTY MEDICAL SOCIETY ORGANIZED.

The physicians of the newly organized county of Cotton met at Temple on October 22 and made arrangements for a permanent organization. There were twelve of the seventeen physicians of the county present. Dr. M. T. Clark of Temple was selected as Secretary.

## COLLECTION SCHEME OF THE LOS ANGELES COUNTY MEDICAL SOCIETY.

The secretary is in receipt of a set of blanks used by the Los Angeles, California, Medical Society for the purpose of assisting physicians in making collections. This scheme was put in operation in the California County some time ago and its practical workings proved so successful that a demand was made from all over the country for its details which are embodied in the literature sent out. This demand resulted in the printing of sample sets by the society and their distribution generally throughout the United States for the information of all who cared to use them.

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## MUSKOGEE COUNTY MEDICAL SOCIETY.

The first meeting of the Muskogee County Medical Society after the summer vacation was held October 14th with a very large attendance present.

The discussion of fees was a part of the evening program and a recommendation was adopted suggesting that charges for professional services be within certain uniform bounds.

Dr. W. D. Berry read a paper on hemorrhoids and demonstrated a modification of a pile clamp of his personal designing which has the advantage over the older designs of clamp in giving a uniform pressure at all points of the tumor within the grasp.

## MEETING OF OCTOBER 28TH.

Dr. J. H. Stopler, Attorney for the State Commissioner of Charities read a paper devoted to and outlining the functions and powers of the State Commissioner of Charities and Corrections with reference to the inspection, control and examination of the different state institutions and hospitals. The paper was a clear statement of the methods used and the processes and results of the activities of his department.

Dr. H. M. Fullenwider read a paper on Mastoiditis covering the types, diagnosis and treatment of that affection. The paper was well discussed.

A committee of three was appointed to inquire into the workings of the collection plan of the Los Angeles County Medical Society, which plan in detail had been submitted to the society. The Committee was instructed to report at the next meeting.

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Dr. J. C. Mahr, the State Commissioner of Health addressed the Payne County Medical Society on October 12th, at Cushing; on October 22nd an address to the Nurses Association of Oklahoma; on October 25th a public address before the teachers meeting at Shawnee on the subject of "Public Health in Public Schools," giving more or less attention to the medical inspection of schools.



He delivered the principal address at Thomas, Oklahoma, on October 27th before the union meeting of the churches of that place who observed Tuberculosis day.

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The American Surgical Association has appointed a Committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntingdon, San Francisco, California; John B. Walker, New York City; Edward Martin, Philadelphia; and John B. Roberts, Chairman, 313 South 17th street, Philadelphia to report on the Operative and Non-Operative of Closed and Open Fractures of the Long Bones and the value of radiography in the study of these injuries. Surgeons, who have published papers relating to this subject within the last ten years, will confer a favor by sending two reprints to the Chairman of the Committee. If no reprints are available, the titles and places of their publication are desired.

JOHN B. ROBERTS, Chairman,  
313 S. 17th Street, Philadelphia:

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#### INAUGURATION OF DOCTOR BROOKS.

The Journal acknowledges receipt of invitation to attend the inauguration of Stratton Duluth Brooks, President of the University of Oklahoma, on Monday, October Twenty-first, issued by the State Board of Education and the Faculties of the University.

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#### MUSKOGEE MEETING OF THE BOARD OF MEDICAL EXAMINERS.

The State Board of Medical Examiners met in Muskogee for examination of applicants on October 7, 8 and 9th. The number of applicants was less than usually appear before the Board, but the class was said to be very high in attainments, etc. The meeting was one of the quietest ever held by the Board, as all trials pending before them were continued until next morning.

## NEW BOOKS

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### INTERNATIONAL CLINICS, VOLUME THREE, TWENTY-SECOND SERIES.

Edited by Henry W. Cattell, A. M., M. D., Philadelphia, Pa., with the collaboration of Dr. John A. Witherspoon, Nashville, Tenn., and other American and European authorities, illustrated, 306 pages, cloth, price \$2.00. J. B. Lippincott Company, Philadelphia and London, 1912.

This issue of the International Clinics is of special interest on account of a well written and illustrated article on the operative treatment of fractures by John B. Roberts of Philadelphia and one entitled "A Year's Work in Appendicitis," by John B. Deaver. There is also a very lengthy and well illustrated article on adult flat-foot, a subject of troublesome character to all, by Walter G. Stern, Cleveland. The work is in keeping with the usual high standard maintained by the authors and publishers.

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### CATALOGUE OF MEDICAL AND SURGICAL WORKS

Published in the United States, alphabetically arranged by the authors and classified under subjects, 1912-1913.

Published by W. B. Saunders Company, Philadelphia and London.

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### THE BLOOD OF THE FATHERS

A play in four acts by G. Frank Lydston, M. D., cloth, 243 pages. The Riverton Press, Chicago, 1912. This is a remarkable little volume devoted to the control and regulation of marriage, a plea for matrimonial discrimination, for the protection of the unborn, for the sterilization of degenerates and a general plea for the elevation of the morals and tone of our police system and a study of criminology in general. The book will attract the sociologist and give the reader much food for thought and contemplation.

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### MUSCLE SPASM AND DEGENERATION.

Muscle Spasm and Degeneration in Intrathoracic Inflammations and Light Touch Palpation by Francis Marion Pottenger, A. M., M. D., L. L. D., Medical Director of the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California, with 16 illustrations, Cloth, 105 pages, price \$2.00, St. Louis, C. V. Mosby Company, 1912.

This volume deals with the finer points of diagnosis of intrathoracic inflammation, especially tubercular involvements by obser-

vation, palpation and percussion of the chest and neck and observations generally of the topography of the chest.

Dr. Pottenger is one of our authorities and his work is that of a close student in his chosen field, tuberculosis, and this book is the result of examinations of several thousand cases with close checking by other systems of diagnosis. It will be found of great interest to those interested in the diseases of the chest and lungs.

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## DISEASES OF STOMACH, INTESTINES AND PANCREAS.

THE NEW (2ND) EDITION, ENLARGED.

Diseases of the Stomach, Intestines, and Pancreas. By Robert Coleman Kemp, M. D., Professor of Gastro-intestinal Diseases, New York School of Clinical Medicine. Second edition, revised and enlarged. Octavo of 1021 pages, with 388 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$6.50 net; Half Morocco, \$8 net.

This is a remarkably good book, covering much more than the previous edition. The chapters on Colon Bacillus Infection and Diseases of the Pancreas are entirely new and are good additions to the former work.

The chapters devoted to Duodenal Ulcer have been rewritten.

The author very properly takes issue with the recent tendency in the profession with reference to increased feeding in typhoid and holds that the amounts recently recommended by some enthusiasts—3500 to 5500 hundred calories—prolongs the temperature and is not good practice.

The chapters on appendicitis are very sensible. More than one hundred pages are taken up in the consideration of diseases of the pancreas which, to both surgeon and internist is a most interesting subject.

The book is well illustrated, the text is very full and copious and the collateral literature on the questions involved is widely quoted.

This work will receive a hearty welcome from the profession and will be found to be an invaluable aid to the physician and surgeon.

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## THE PRACTICE OF GYNECOLOGY.

FIFTH EDITION, THOROUGHLY REVISED.

A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M. D., LL. D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Fifth Edition, Thoroughly Revised. Octavo of 1100 pages,

with 1050 original line drawings. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$6.50 net; Half Morocco, \$8 net.

Ashtons' Gynecology has deservedly become one of the most popular works in its class before the medical profession. This later edition deserves the thoughtful consideration of all gynecologic operators. The work is on the same general plan of its predecessors and deserves special notice on account of the following characteristics:

The volume is well printed and illustrated, many of the cuts are new to this edition and the text and cuts are closely parallel. A feature of the cuts is that the necessary instruments and sutures used in each operation are clearly shown and the cuts of each operation are plentiful enough to make clear to any one the operation as described step by step.

This book can be heartily recommended to every student of medicine and especially to those practitioners who are taking up the study of gynecology with a view to simplicity and perfection in operative technique.

This work contains additions to the literature on the palliative treatment of cancer, the newer treatments of syphilis, cystitis, a thorough revision and consideration of gonorrhoeal infections of the uterus and tubes, the causative influence of "hormone" or an internal secretion of the ovaries in the production of diseases peculiar to women and the Fowler-Murphy treatment of suppurative peritonitis.

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#### PRACTICAL MEDICINE SERIES.

Volume 5, OBSTETRICS Edited by Joseph B. DeLee, A. M., M. D. Professor of Obstetrics Northwestern University Medical School, with the collaboration of Herbert M. Stowe, M. D., Cloth 229 pages. illustrated price \$1.25, Chicago, The Year Book Publishers, 186 North Dearborn Street.

This is a good review of recent obstetrical literature with profuse editorial comment and is very useful to those desiring a good reference to recent works and advances on the subject.

Volume 6, GENERAL MEDICINE, Edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School. Cloth 350 pages illustrated. Price \$1.50. The Year Book Publishers, 180 North Dearborn Street, Chicago.

This is the second volume on the subject of general medicine for this year in this series and is a continuation of the previous volume, but not a repetition of subject.



## SOME VALUABLE PRODUCTS FOR THE TREATMENT OF DISEASES OF BACTERIAL ORIGIN.

Since the advent of diphtheria antitoxin it is doubtful if any new remedial agent has elicited greater interest than is now being manifested in the bacterial derivatives known as Phylacogens. These products were originated by Dr. A. F. Schafer, of California, the method of preparation and technique of application being first presented to the San Joaquin Medical Society in Fresno. To the uninitiated it may be said that the term Phylacogen (pronounced phy-LAC-o-gen) means "phylaxin producer," being derived from two Greek words signifying "a guard" and "to produce." The Phylacogens are sterile aqueous solutions of metabolic substances generated by bacteria grown in artificial media. They are produced from a large variety of pathogenic bacteria such as the several staphylococci, streptococcus, pyogenes, bacillus pyocaneus, diplococcus pneumoniae, bacillus typhosus, bacillus coli communis, streptococcus rheumaticus, streptococcus erysipelatis etc.

Four phylacogens are now offered to the medical profession: Mixed Infection Phylacogen (used in the treatment of bacterial diseases of unknown etiology), Rheumatism Phylacogen, Erysipelas Phylacogen, and Gonorrhea Phylacogen. They have been thoroughly tested clinically and are said to be producing excellent results in the treatment of the various pathological conditions in which they are indicated. They are administered hypodermically—subcutaneously or intravenously—preferably by the former method, the latter being advised only in cases in which a quick result is demanded. They are supplied in hermetically sealed glass vials of 10 Cc. capacity.

The Phylacogens are prepared and marketed by Parke, Davis & Co., who have recently issued a 24-page pamphlet which describes them in detail—the process of manufacture, therapeutic indications, dosage, methods of administration—everything, in fact, that needs to be known by the man who desires to use phylacogens. Every physician in general practice, every practitioner who desires to keep abreast of the latest advances in bacterial therapy, should have a copy of this valuable booklet. Write Parke, Davis & Co., at their general offices in Detroit, Michigan, ask for the "Phylacogen pamphlet," and mention this journal.

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Next Meeting—

Address all communications to the Secretary.

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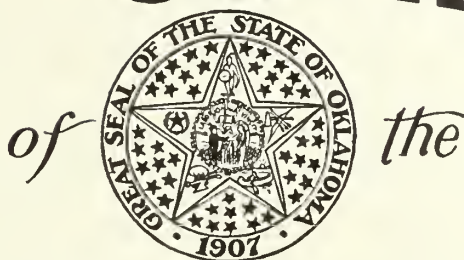
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# THE JOURNAL



## Oklahoma State Medical Association.

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No. 7

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DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

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### ALCOHOLIC INSANITY

DR. J. W. DUKE, Guthrie.

Pretty nearly all the nations of the earth have had a drug whose habitual use has been an almost constant danger to its people. Of the numerous intoxicants whose constant use disturbs the mind, those most generally used, and of greatest injury are alcohol, morphine and cocaine. It is a sad fact that these drugs have always first been used for medicinal purposes, and later indulged in for their exhilarating effects.

Acute alcoholism will be described here because of its relation to chronic alcoholism. Acute alcoholic intoxication first produces a diminished power of appreciation and comprehension. The perception of simple external impressions are lessened and voluntary impulses are easily released and acted upon. The understanding of simple sensory impressions are difficult and uncertain. The victim is unable to solve the most common problem, and manifests a marked weakened intelligence. The association of ideas most nearly related to the motor elements of speech is marked and prominent, manifested by the use of compound words and rhymes. Motor impulses are accelerated and those expressions most familiar are first uttered. When



larger doses are taken, psychomotor activity is succeeded by paralysis, depending of course, upon the amount taken and the susceptibility of the individual, thoughts are not readily or easily controlled; complicated problems are impossible. This condition increases with the amount taken.

A grossly intoxicated man is unable to understand anything said to him, or what goes on about him, and is unable to direct his thoughts. The emotions first give away to a feeling of well being, he becomes lighthearted and gay; later becoming irritable and morose. High moral feeling is lost, he becomes shameless, and because of increased sexual excitement often commits filthy excesses. The duration of the intoxication, of course, depends upon the individual and the amount taken. It usually disappears quickly, though often lasting twenty-four to thirty-six hours. Nissl has observed a profound change in the cortical neurones, the destruction of many cells, the fading and the irregular amalgamation of the Nissl granules, the diminished and irregular nucleus with disappearing membrane and nucleolus.

Alcohol takes a very prominent place in the etiology of insanity. This is not only true from the large number of individuals who indulge in alcoholic excesses, but from the more serious fact that the long continued use of alcohol in any form produces organic changes in the brain and nervous system. The brain, its membranes and accessories, as is well known, constitute the chief organ of the mind, when disarranged in any of its minute delicate ramifications, naturally disconnected thoughts are produced. This can be more readily understood if we look into the anatomy and physiology of the brain. The brain is divided into hemispheres and is contained in three membranes. The dura, the pia, and the arachnoid, all of which are rich in blood supply. The cerebral cortex is largely composed of blood vessels, which are easily affected by the deleterious influence of alcohol. Moreover, scattered throughout and over the cortex, in spider like cell formation are the neurons, the nerve cells, and the nerve fibre, constituting the vital forces many believe, of the mind itself. These bodies receive nourishment from the arterioles which coalesce, pass over, around and through them; at each pulsation of the heart. Each time the heart beats these little arterioles carry blood over the neuron or nerve cell, from which they receive their nourishment and life. When these arterioles become hardened or sclerosed from the effects of alcohol it is not possible for any more blood to pass through them, the lumen becomes obliterated, the nerve cells die from starvation, and the mechanism becomes greatly disarranged in consequence of which abnormal ideas are developed eventually resulting in alcoholic insanity, with its accompanying and complex delusions, hallucinations, and illusions. A marked degree of mental weakness which expresses itself in limitation of judgment and a weakening of

mental power, there is a disturbance of the moral feeling manifested by indifference to his own interest, to what was sacred to him before, to his calling, and to his friends. He no longer recognizes the exactions and duties which his position demands of him. He loses the conception of his honor, of his station, and his thoughts and actions; he lives chiefly for the gratification of his passion. The poorer subjects become beggars, and steal to buy liquor, among the well to do, forging checks to maintain the means for gratifying their passion is very frequent. The organs of the body show well marked changes of chronic alcoholism, especially atheroma of the vascular system; disturbance of the heart, fatty liver, and cirrhosis of the liver, kidney changes, and alcoholic degeneration of the gastrointestinal tract. There is often a hyperostosis of the cranium, external and internal pachymeningitis, very often hemorrhage of the membranes and fibroid degeneration, and occasionally degenerative neuritis in the peripheral nerves. Fifteen or twenty per cent of the cases of insanity are directly caused by alcohol, or it is one of the chief causes. Common drunkenness—acute alcoholic intoxication is of interest here, only in so far as the drunkenness runs an abnormal course. These *abnormal drunks chiefly arise in cases who are chronic alcoholics*, almost all of whom sometimes come to the medical profession for help. Much can be done for these subjects by prophylaxis, little can be accomplished for their relief after organic brain and nerve changes have occurred. In the discussion of the treatment much time and care should be given to prophylaxis for this is the only means at present available for their relief. The chronic alcoholic should always be treated as a ward of the state, irresponsible and requiring especial care. Alcohol destroys more people than tuberculosis, and costs the United States more than two billion dollars yearly. About ten per cent of all the deaths in the United States are due to alcohol. It lowers vitality, destroys acquired immunity and prevents artificial immunity. It predisposes to infection, increases mortality in all surgical diseases and lessens the power of the individual to resist the injurious effects of extreme heat and cold, and should always be classified as a poison and never as a food or stimulant. No one who drinks alcohol to excess should be considered responsible or sane. The extent of mental and moral irresponsibility must be settled in each case after a careful study of the facts of each victim.

Intoxication is insanity and irresponsibility under any circumstances, and will be so regarded by all thinking men in the future.

## DISCUSSION.

DOCTOR LINDSAY, Pauls Valley.

I enjoyed the paper very much. It is a very, very important subject,—one that I think we do not give enough attention. Es-

pecially to the chronic alcoholic. A man does not necessarily have to become a drunkard before he becomes a ward of the state. Whenever a man gets to the point where he is considered a chronic drunkard, he is dangerous not only to himself, but to society generally. He is in shape then to lose everything. If he is a bank clerk he is ready to forge a check, or rob a bank, and whenever that man is arrested people are ready to say he is a thief and ought to be sent to the penitentiary. When he is under the influence of liquor from day to day, he is not only endangering himself but others. He is endangering the people he works for, and I wish the public would catch up with that man and warn him before it is too late. There is no question but that alcohol is the greatest cause of insanity that we have. I think it is next to syphilis. It is one of the greatest social problems that the people of this country have to deal with, and the time is coming and I hope it will speedily come when our people will better understand the danger of alcohol.

DR. S. S. GLASSCOCK, Kansas City.

I enjoyed the paper very much,—a very timely paper and one that should impress itself upon the profession. This is a question we have to deal with in these nervous and mental diseases, and if the profession at large would appreciate the experience men have who deal with this class of cases, they would be in a position to assist us more than they can at the present time. Of course, as the doctors stated, alcohol and chronic alcoholism are a fruitful source of insanity. But in order for it to produce insanity there must be a tendency to insanity present. We all in our circle of personal acquaintances know men who drank a large amount of alcohol daily and we see no appreciable effect upon their mentality. Of course, as Doctor Duke says, any amount is detrimental to the system, it is not a medicine, it is not a stimulant, and it is not a benefit to the human race, but as long as man exists and as long as alcohol exists, men will seek the stimulating effects of it, and when we take into consideration the fact that most chronic alcohol users are degenerates to start with, they are wrongly balanced, they are not composed of that stable material that makes the best men of the country, it is best for us to keep temptation away from that class of people. Many men use alcohol to some extent and will never become drunkards, but that ever increasing class of neurotics is the most fruitful source of insanity. The man who commits murder under the influence of alcohol is at the beginning a degenerate, and if we could—if as a profession and as a public, if we could banish alcohol from that class of degenerates, we will have done a thing that history will record as one of the greatest events of American history.

DOCTOR DUKE (Closing)

I appreciate with much interest the interesting remarks of Doc-



tor Glascock. I think one of the first things to do to curb alcohol would be to have the subject taught in our public schools, by a system of lectures delivered by some person who knew the subject thoroughly to the pupils, say, in the eighth grade and in the high schools and also the colleges, teach them if they drink they undermine their nervous systems and are dabbling with one of the most potent and pernicious poisons in the whole world, which produces death and insanity, in a large proportion of the population of the world. It not only destroys individuals, but it destroys property, it destroys communities and it destroys the state. Many communities in the United States have been controlled by alcoholics who were in control of that community, which is for a bad moral effect. I think the people are derelict in that particular, that they do not teach each child in school the effects of alcohol, cocaine, morphine and other things which destroy the nervous system. Of course, there are many individuals who have drunk alcohol all their lives without any seeming bad effects, but when you consider the neurotic tendency of the Anglo Saxon race, it would be very difficult to determine where this degeneration began which resulted in his destruction. It would be very difficult for two men to decide which was of degenerate origin, if he began to use this drug.

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## DIFFERENTIAL DIAGNOSIS AND TREATMENT OF INFLUENZA

DR. HARRY BREESE, Henryetta.

When it is realized that influenza is the most easily spread disease known, it is time that the public be educated on prophylaxis. The teachers of the laymen have had quite a volume to learn themselves, on grip, since 1889.

I once said in a paper for a county association: "That no two successive years and no two months in any one year were alike in the malarial manifestations." And I think that the same can be said of influenza.

Foreign authorities who have studied centuries of history of this disease, classify it into four distinct varieties: The muscular, the nervous, the gastro-intestinal and the respiratory. And it seems in practice and by the literature also that each has "Forty home sweet home variations." The different varieties have varied so much during the four centuries of their history that various names have been used to try to illustrate its nature with such terms as: contagious catarrhal fever, sheep cough, gallant and fashionable disease and lightning catarrh.

The words grip and influenza have run a parallel race since their beginning in 1743. Each note worthy pandemic and wide epidemic



since 1510—fourteen of them—averaged an interval of about 20 years. Each one covering a period of one to four years. And each pandemic leaving as—we now know—living human germ carriers, starting an occasional endemic or epidemic. In some portions of the earth the epidemiology returns annually till the virulence of the germs become latent.

Thinking back to the pandemic of 1889, we remember that most, if not all attacked at that time, suffered from the muscular form and a large per cent had sneezing at the onset. And the American literature published a few years thereafter; gave sneezing as one of the main diagnostic signs. Yet that symptom, from year to year, with the various forms is not found in only about one-fourth of all cases, except the localized nares manifestations of the respiratory variety.

In differential diagnosis is a word that covers a multitude of sins. It can be suggested in typhoid, malaria, functional headaches and pains, insertian headache, neurasthenia, hysteria, bronchitis, neuralgia, rheumatism, mastoid necrosis, erythema, septicemia, abscess, phthisis, pneumonia and cerebro spinal meningitis.

The usual books or encyclopedias do not give the space or case histories, complications or sequelae and symptomatic variations that is required for detailed reference and study.

The world's greatest pandemic having reached America in 1889-90 impressed the public that it was a winter disease; yet said pandemic started in June in Turkestan. And as I have already mentioned possible, we have had endemics and epidemics ever since, illustrating the different forms and varieties from time to time.

The intestinal form may begin with a chill, high fever, bowel paresis, followed in a few hours by delirium, the high temperature and delirium occasioned by auto-infection. These conditions may or may not have been immediately preceded by a chill. The sudden onset leaves typhoid out of the question. But malaria is to be recognized to be forgotten as it scarcely, if ever, begins so seriously; unless the attack has been preceded by other chills or a longer period of fever.

Begin atropine in maximum doses and repeat hypodermatically every two hours till physiologically affected. And the meantime give a maximum dose of calomel and jalap with a chaser every hour of castor oil, cascara or phenolphthalein or all of them. The temperature will immediately drop two or three degrees after the treatment has produced peristalsis and evacuations; consciousness will return. This is the only form of grip that should have cold packs and that discontinued after the return of consciousness, except that ice may be directed for the head. Enemata will do no good prior to evacuations or established peristalsis by the drugs.

Massage, lumbar and sacral as well as the abdominal. After eight or ten hours following the first results, the temperature may jump from the retention of a lazy colon; then the enema is all right and the thing to do.

If the delirium continued several hours do not be surprised at shock to follow. I have in mind such a crisis in the eleven year old daughter of a neighbor colleague. About eight hours after the first happy results, severe shock manifested: the child had been failing for two hours, prior to a complete cessation of radial pulse for thirty minutes, strychnine, digitaline and atropine in maximum doses had been kept up alternately and hot water bottles and alcohol massage during the thirty minutes. These recuperated her vitality; all conditions grew rapidly better and the little girl met me on the porch thirty-six hours later to shake hands.

This girl began with a chill at school in the afternoon. She was given cold baths but was delirious all night. The writer was called at 5 a. m., diagnosed and directed the above treatment. Among five doctors—including the father—malaria, septicemia and mastoiditis were diagnosed and Dr. M. K. Thompson was sent for, who arrived late in the day to make a negative diagnosis, and also to state that the patient could not survive an operation if one were indicated. This case is partially recited because she is a member of our large family.

It is possible to find paresis in the opposite extreme. A voluntary expulsion, lack of bowel control, slight, if any fever, perhaps subnormal. The patient may be found in a severe shock. The universal law for stimulation and nourishment is applicable here. The specific treatment later. One could conflict abdominal wall rheumatism with some mild forms of intestinal grip or he could be frustrated with colitis or grip gastro-enteritis already diagnosed "Flux." One five grain dose of calomel with a saline chaser supported by dovers powder, bismuth, ichthalbin and some reliable tannin all in one powder, repeated three to six times a day given alternately with salicin will usually affect a cure in two days provided a proper diet has been followed. His brother may have a dry parched scaly tongue, three degrees of fever, beginning erythema, suspiciously hinting, "rose spots," his prodromal history parallel to typhoid. Salicin and sodium benzoate in large doses six to eight times a day will soon prove a diagnosis, if it is grip, he will be much better or well when it is time for another visit. Their lack of immunitive power may follow meteorism, ulceration, diffuse peritonitis or their destruction may be caused by lung complications.

We have used salicin eight years, more especially, since Edward Willard Watson said last fall in the International Clinics that: "It is a question whether we have not in salicin a specific, if used early,

for influenza, comparable to cinchona in its action on the organisms that causes malaria." The doses must be seemingly large to the laity. A double ought capsule six to eight times during the waking hours is a common direction of mine. If the personal history gives a rheumatic gouty diathesis there will be more tendency toward the nervous variations from dull aches to severe neuralgia. No matter what form such people usually have greater pain. Hence, one should never forget personal histories.

Sometimes these cases have it mildly enough to make it amusing for all concerned. In my office one morning one after another till seven had come and gone complaining of intercostal pain. A few were frightened sick over heart trouble and those with right sided pain were pale over pneumonia scare.

If the history taken shows rheumatism, mix novaspirine and salipyrin or let aspirine take the place of the two latter. However, salicin will sometimes stop pain better than anything else, opium excepted.

Occasionally the addition of one to two grains of codeine will be required. And in all cases during frosty or damp weather protect the patient by insisting on his being kept in bed, in a warm room day and night.

Should the respiratory form attack his lungs and fill them with pus and mucous, a positive diagnosis whether to exclude pneumonia cannot be made for two or three days. Again there are cases that may have had a mild pneumonia and will call or present themselves with bronchitis, fever, poor appetite, some pain or grip symptoms. Then look out for deep thoracic abscess or pus in pleural sack from a supposed grip spell.

The respiratory form may locally involve only the tonsils, pharynx, bronchi or nares. If the latter is affected in cold weather secreting pus and mucus do not hope for a speedy recovery unless house confinement is observed.

The usual constitutional treatment with one application of tincture of iodine to the tonsils; any standard alkaline wash for the nares, followed by an ointment of boracic acid, camphor and menthol. For convenience this ointment can be obtained in tubes. Said treatment may make the patient think that he is well in forty-eight hours and venture out for a half-day's drive, in the cold, to learn at night, that he is as bad as ever. Because there was not sufficient time for the mucous membrane to heal. Such conditions may produce anesthesia or paresthesia along the courses of the nerves of taste and smell.

Either from grip or coryza, the nares may become congested and that dreaded mouth breathing be occasioned. Which can be relieved in a few minutes for the whole night by holding close to the affected side a two dram bottle with menthol chrystals 20 grs. cam-



phor gum 4 to 8 grs. and chloroform q. s.; compress the opposite side and try to inhale through the engorged side, it will never fail to relieve the congested mucous membrane and permit free breathing again. Also this prescription will often abort a threatened or beginning coryza if used in time. It is a good thing to carry in the vest pocket during epidemics to inhale two or three times after leaving a much contaminated atmosphere.

Some years a few days of very severe nervous coughing will attack a large percent of the children, nothing has proved superior to paregoric for these little victims. I have seen, five years ago, scores of children immediately relieved or cured of this symptom with one to six doses. If you diagnose cold give terpine hydrate with a small per cent of paregoric.

Since my beginning this paper, 26 ult., I have treated five adults, who were suffering from mild tonsilitis, pharyngitis, cough, hoarseness and sore chest. Their having grown worse for one or two weeks after their taking quinine for colds or malaria. In these toxic cases, without fever, I have found sodium benzoate in large doses to materially assist the so called specific treatment. Those who were present at the last meeting of the Western District Association held at Wagoner will remember that I was so hoarse that my reading was scarcely understood. My druggist had been treating me for cold two weeks with quinine, dovers powders, et al. And I was getting worse every day. This onset was before any frost that fall. And my mind's being on saving money for the preacher, I naturally was slow in thinking of self. In short we had salicin and sodium benzoate left from the preceding year and the druggist cured me with those in two days as well as ever.

With a disease that has a nervous form like influenza and affecting from fifty to ninety per cent of the population, it is natural that latent diseases springing up with or following influenza be classified wrong. However, the seriousness of nervous influenza itself would take too much space for a complete discussion here.

When we know that it has caused meningitis, cerebritis, neuritis, photophobia, temporary paraplegia, exaggerated or brought about hysteria, transient insanity and many other nervous conditions; we have a right, in fatal cases to say that nothing but an autopsy would reveal the positive cause. Prior to 1907, the lumbar puncture proved no bacillus of influenza from the stains or culture methods then used. A few have since been reported.

It is well known that the bacillus isolated by R. Pfeiffer and announced to the world in 1892 is the cause of influenzal meningitis. The toxins of influenza may cause stiffness of the neck or violent occipital neuralgia may have those symptoms as a sequelæ; hence the caution necessary. Typical influenzal respiratory symptoms,



acute bronchitis and pneumonia are more likely to be followed by some purulent meningitis than they are by the infection from the bacillus intracellularis. I do not mean to say that the latter may not also be purulent. In other forms of grip nothing but a lumbar puncture is possible to decide. For both may be ushered in alike.

We learned at Dallas, that dull finger nails with the proper pressure drawn near and parallel to the spinal processes would be followed by a red line. I have tried this on five known cases of cerebro-spinal meningitis in private work and found the sign positive. The red line in severe attacks may follow an inch wide and six hours later resemble a cat scratch. Yet no abrasion of the skin has been made. This sign may not be found the first twelve hours but it can be found within eighteen hours after the onset of fever. In experimenting, I observed that naturally; the farther from the spinal column, the less the discoloration. Neither have I found this sign in other fevers. The red line may follow but it will fade away in a few minutes.

I have said nothing of the comatose grip, the history and the differentiation from uremic and diabetic coma and pernicious comatose malaria will soon bring about a correct diagnosis.

Unless the mother is afflicted, children at the breast are less apt to contract. For infants and young children unable to swallow capsules, I prescribe sal-o-quinine and direct it given in fruit juice or syrups. If there is coryza, I also use the nasal treatment and terpine hydrate. Salipyrin is a product of salicylic acid and antipyrin; therefore it may be used any time the latter is not contra-indicated.

Barring the treatment, it is noticeably plain that bed-side clinical diagnosis has been the prominent feature of this paper. However, the microscope should be used, when possible, in doubtful cases of typhoid, malaria or tonsilitis. A scabby catarrhal nares may reveal the Klebs-Löffler bacillus. A keen eye may notice a progressive membrane from the posterior nares to the pharynx.

In conclusion too much attention cannot be paid the feeble or the aged. They should be taught the seriousness of the so-called backsets. The probability of new complications following each exposure to the inclement weather. That no one is well of grip, so long as the porcelain color coats the tongue. The catarrhal coat of long standing is to be differentiated. A winter grip not well guarded may last all summer and destroy the transgressor in the closing.

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## DISCUSSION.

DR. BLAND, Red Fork.

I do not understand what he means by the maximum doses of oil, salicin, sal-o-quinine and sodium benzoate?

And I didn't understand why it should be given often and how long it takes to operate? He spoke about the low vitality causing peritonitis. I would like to know how many cases he has observed as a result of influenza?

DR. FJERSKOV, Claremore.

I would like to ask if he would give aspirin and salipyryne to the aged? And in what stages?

DR. LITTLE, Okmulgee.

How frequently do you find the comatose form in grip? And why do you say that the Germans know so much more of influenza than we?

DR. BREESE.

The comatose form does not come often, I have seen but a few cases in several years. But the point I wish to make is that we never know in what form grip may come the most. And that we should always be ready to make differential diagnosis.

If you were to read a thousand pages on typhoid, you could readily see that it would be hard to make even a synopsis of it in a short paper. The Germans knew more about influenza prior to 1889 than we yet have proved to know. I have never seen any person with true influenzal peritonitis. If in Germany and many other places in Europe were to lose a case of peritonitis suspected by grip, they would make an autopsy. They have studied it centuries and we have studied it a part of a century.

I saw a child last week, that had a little touch of cerebritis, or meningitis, one or both of which made me think of spinal meningitis, if it had proved fatal and been in Europe, perhaps they would have gone in to the tissues to see and know. Which they have done often to prove that grip can produce many forms of paralyses and neurites. Most of whom, or, in fact, nearly all recover in time. Grip has caused insanity and the patient so adjudged and the attendants to learn later that recovery came after the grip had passed.

I mean by peritonitis that the bowel form, that is of a nature like the loose bowels of typhoid may exaggerate some old pathology, or cause lessened resistance to the bowel bacillae or a possible perforation of the bowel amongst numerous ulcers caused by grip. Autopsies have proved the latter too numerous to mention. The other bowel form more emphasized in the paper is not so serious along this line.

It is easy to tell when enough atropine has been given. The case referred to would not take much oil and jalap mixed at a time on account of the delirium; therefore the frequent repetition. Use the stethoscope and you can safely note when to stop the laxative treatments.

The aged and feeble may take all or any of these drugs but their idiosyncracies must be noted and the size of the dose made to meet the lowered vitalities. All patients past the middle line or from 35 years of age, should be supported. For this I have found nothing so good as the glycerophosphate compound elixirs. If the aged can not take salicin there is not anything else that will be less harmful.

The serious thing is to keep them in bed, and a warm room. Do this just as soon as the diagnosis is made if it's a fever grip and save the grip congestions of the lungs or a grip pneumonia.

One can not easily take too much of either salicin or sodium benzoate. He could continue the latter too long. Personally, the time that I cured myself in two days after trying the quinine so long, I took a hand full of each at the same time three times a day for two days and quit because I was well.

The basis on which I diagnose, especially strangers or persons not often seen is by recent history, objective and subjective findings. Some times it takes the repetition of a question several times several minutes apart. They often treat the conditions so trivially that it is hard for them to remember. That was demonstrated while writing this paper by a traveling man. He was sick, yet had no fever, he denied his having sneezed. I knew that he had the grip and was writing the prescriptions when in answer to questions, while I was writing: "Yes, I felt pretty bad last week, from an awful cold I had." You sneezed then, did you not? "Oh, yes, I sneezed a great deal then.."

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## ECTOPIC GESTATION

S. N. MAYBERRY, M. D., Enid Oklahoma.

Ectopic Gestation, is the most spectacular and sensational subject in modern surgery.

That the Supreme Ruler, in His infinite wisdom, should have seen fit in the creation of the female, to have made it possible for her to conceive in another place outside of the uterus, is beyond the understanding of the human mind.

One does not need to draw hard upon his dull imagination to appreciate the extreme gravity and frightful danger in the situation.

The phenomenon is unique. A living, growing fetus in a tube that is too small to accommodate it, but for a brief space, yet that brief space offers the opportunity for a diagnosis, but very few make it, before the crisis, but in defense of the profession, I will state that we are not often consulted until after the crisis.

In these cases the unfortunate victim considers that such a condition of affairs is a part of the suffering of a normal pregnancy, and consequently, fails to consult a physician.

A doctor is in disgrace now-a-days, that allows an appendix to go to perforation before making a diagnosis, Ectopic Gestation is not so common but its symptomatology is more regular.

The etiology of ectopic gestation finds its explanation in two facts: First—That it is possible to impregnate the ovum outside of the uterus. Second—That the spermatazoa are permitted to roam at large over the lower abdomen.

Outside pregnancy is now conceded to be always tubal, and will so remain until one of two things occur—either a rupture of the tube with an escape of the mass into the abdominal cavity, or an abortion of the products of conception out through the fimbriated extremity.

The fetus is invariably destroyed by the rupture, but in the abortive form it often lives and may attain to full term.

The interest in these cases is further intensified by the fact, that a fecundated ovum in a tube is the foundation for a crisis that means death to its victim, if allowed to pursue the evil tenor of its way.

*Pathology*—The pathology is confined to the immediate locality of the tube and uterus. A constriction of the tube is likely the explanation of the whole affair.

Some previous salpingitis causing an obstruction and this obstruction in turn causing the fatal delay in the passing of the ovule which is overtaken and fertilized.

The formation of the amnion, chorion, decidua and placenta are much the same as in the normal pregnancy. Some say that the placenta is formed from the ovum, and that it does not cling to the lining membrane of the tube, but burrows into the deeper structure. We have in addition, a decidua forming in the uterus, which enlarges as the process advances.

Now with this condition of affairs one can readily anticipate and appreciate the class of symptoms to be expected.

All the symptoms of pregnancy would be present. Sick stomach, change in the breasts, discoloration of the nipple, discoloration of the vagina and cervix, irritability of the bladder, etc. All these with a few more be added such as tumor in the affected side, sharp, shooting and darting pains, and an enlarged uterus.

After the tubal implantation, the process develops rapidly, the tube is soon placed at high tension and this high tension produces pains of a sharp, shooting and rythmical character, not colic pains, but that pain that produce faintness and prostration.

This sharp, shooting, darting pain that produces faintness and prostration is a departure from the symptoms of normal pregnancy, and testifies in behalf of tubal pregnancy.

Another departure from the normal pregnancy is a tumor, a mass is soon discovered in the locality of the pain. This tumor is freely



movable, soft and has a tendency to push the uterus to the opposite side, and by interfering with the return circulation gives the discoloration to the vagina and cervix and often leads us to believe that we have a normal pregnancy.

A third departure from the normal pregnancy is an empty enlarged uterus. The decidua that spreads over the endometrium, produces a disturbance of the menstruation and often gives rise to a flow that is characteristic in odor and color to a miscarriage, and this has been responsible for leading many a good doctor to a wrong conclusion.

Did you ever treat this condition for a miscarriage, perhaps some of you are inexperienced and have not, but before many years pass by, you will find yourself guilty. You know the surgeon that never lost a case is either inexperienced or a liar, but those who have never treated this condition for a miscarriage is not so bad off. You are not liars, but simply inexperienced.

The Three Cardinal Points, in a differential diagnosis, are:

First—Sharp, shooting, darting pains that produce faintness and prostration.

Second—A tumor or mass in the locality of the pain.

Third—An enlarged, empty uterus that may be discharging or may not be. If it is discharging the flow is characteristic of the miscarriage.

The diagnosis is not generally made until after the crisis, then we have a few more symptoms to add to our collection.

There is a history of a sudden, severe pain that produces shock and symptoms of hemorrhage. There is rigidity in the lower abdomen more marked on the affected side, and if it should be right side, one might get confused with appendicitis, but there is a bulging in the posterior culdesac, from the accumulation of blood and the products of conception.

Rapid, pulse, restlessness, extreme palor, clammy skin, thirst and a demand for oxygen belongs to all cases of hemorrhage and it obtains in rupture or abortion of the tube.

The fetus perishes in the rupture form, while in the abortive form the products of conception drop from the fibriated extremity and may attach itself to any of the surrounding tissues and in this manner attain to full term.

The forming of a new decidua after the abortion is very destructive to the structures, causing intense adhesions and erosions.

*Treatment*—The idea of an immediate operation, to control hemorrhage is not much entertained as the loss of blood does not prove fatal, and an operation is more dangerous while the patient is in extremis, but better wait for the rally and the passing of the shock.

Now, since we advise, no emergency surgery, theraputic will naturally find a place in the treatment. And the medicines indicated are any that are good for hemorrhage and shock.

*For Hemorrhage*—Ice pack elevation of hips, ergot and normal salt.

*For Shock*—Opiates and heat to the cold extremeties, and when the hemorrhage is under control and the shock is gone can operate with safety.

*Shock*—What is shock? Disturbance to central nervous system. There the treatment must be directed to lessening impressions caused by hemorrhage and pain, and this is not digitalis and strychnine, but opiates—whiskey is allowable, not as a heart stimulant, but to deaden the sensibilities.

I would advise an operation as soon as possible, after the shock, and in that class of cases where there is no shock I would advise an operation at once.

Delay invites infection and an infection increases the suffering, raises the mortality and prolongs the recovery.

Had eight cases last two years, operated all. Diagnosed a few. One diagnosed as appendicitis. Tube rupture in this case produced no shock, she was operated same day. Tube still bleeding after abdomen was opened. Two of these cases were brought to University Hospital, Enid, after infection and a large abcess had formed in culdesac. Four of the cases gave no history of shock. Five of the cases had the characteristic flow of miscarriage. The other three had no flow. One was brought from a distance with perforation of the bowel and the lower **abdoman** full of pus and stool, died six days after operation. Rest recovered.

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## DISCUSSION.

THE CHAIRMAN.

I am sure we are going to have some discussion on this paper. If not, the Doctor will be disappointed. Who will be the first?

DR. MESSENGAUGH.

I would hate to see the Doctor disappointed. I think the paper is a good one, and that the Doctor's statement that there have been fewer diagnosis in the past than there will be in the future is also true. There is a case that has never been reported on this text—I think Dr. Jolly knows about it—a case in Oklahoma City, about twelve years ago, of abdominal pregnancy. The woman lived out in the country and for five years had been practically an invalid and five years previous to that was supposed to give birth to a child and when the time came on did not, and went through all kinds of septic conditions. And when brought to the hospital there was a little bone that had passed into the

vagina and passed out and that was a part of a fetus. An opening was made and the entire fetus bone was removed, all the soft part having been absorbed, and while the woman was greatly emaciated was still alive. That seems almost unbelievable, but all the bone was there and seemed to be in a good state of preservation and seemed to be as much matured as it would have been if the child had been born and had been laying in there, evidently, five years. As far as the doctor's diagnosis is concerned, that is the main point and in the treatment it depends on how long the bleeding is going to continue. Of course, some people will bleed to death. I have known surgeons to use the rule if the patient stood a better chance of living by operation to always operate. If they thought the patient was going to die they would operate. It is all right to wait until after the shock, but the point is whether the hemorrhage is going to stop or not.

DR. OLDHAM.

The paper was very interesting. In regard to waiting before operating. If there is real danger of bleeding to death, my opinion would be to give enough chloroform to quiet the patient and operate on them as quick as you can get them on the table and stop the hemorrhage. One case I call to mind the patient had the rupture and the accompanying shock. It went along without diagnosis for one month and the patient had another hemorrhage and died. If we know bleeding is going to be limited we can take our time about attending to it. If that could be done and we knew just when we were going to have certain conditions that would be all right, but we never know just when that condition will pertain.

DR. JOLLY.

Dr. Mayberry has given us a very interesting paper on Ectopic Gestation. I think the most important point is the diagnosis and he has manifested the three cardinal symptoms. I have had a number of cases that have had the shock without a hemorrhage in the abdomen. So the shock is not produced entirely by loss of blood. I had a case several months ago, where a woman had had several children and she knew she was not pregnant, and she had a cramp-like pain and shock attending it every few days, and had me make a diagnosis of ectopic gestation and she refused to be operated on for three weeks, knowing I was wrong, and when I got in there I found I was right—had made a correct diagnosis and I made it more from the character of the pain and the shock following it. I believe that operation is necessary. I know that at the shock and loss of blood is a bad time to operate on a patient, but I know of a case where they tried to avoid the operation and the hemorrhage was repeated every twenty-four hours and the woman very nearly died, and I think in that case, if she had not been operated on she would certainly have died.

## DR. ELLISON.

I think Dr. Mayberry's paper brought out one point, and that is that the general practitioner should pay more attention to the cases of pregnancy. Whenever a woman comes to the physician and tells them they are experiencing pains during pregnancy, which they never had before when pregnant, an investigation is necessary. Nothing short of a physical examination should be made. We know that most of the cases of this kind come to the surgeon too late. I spent some time in the hospital at Chicago, with the doctor, and we used to have cases of that kind and no single case came in except they reached the hospital after the rupture and, of course, their chance for recovery is lessened then. The operation could have been made easily, or to better advantage sooner. After the hemorrhage it takes a good deal of judgment to know when to operate. Now days it is the practice to wait until the shock has passed to a considerable extent, for we know they do not bleed to death if the hemorrhage is lessened, and, of course, if it is not, they will bleed to death. If operated on then and the shock is so great that it kills them, then it is not the hemorrhage, but the surgeon, that kills them. I saw one case where a grass-widow came to the hospital with all the signs and symptoms of rupture due to pregnancy, which she denied to be possible. She was taken to the operating room and operated on, and there was a fetus of probably six or eight weeks removed, and there were some clots of blood and one large clot remaining, and when operating, as assistant doctor, I noticed on the left side, high back, near the kidney was a large mass, and I wanted the doctor to dig that out, and he told me to leave it alone; that it was probably a blood clot, and if we left it alone it would be absorbed, but if we bothered around it the patient would die. So it was my business to keep my mouth shut, and I did. She got well and left the hospital and in six or eight weeks came back again and had symptoms of peritonitis. The Doctor said he did not think it was any of his fault, but the indications were she ought to be operated on any way, and operated on her. When inside the abdomen the first thing he got hold of was a fetus and this second fetus was perhaps six or seven months old. We tried to get a history of the case. The patient did have infection and the abdominal wound was not closed at all. The fetus was removed and as soon as she got so she could discuss the thing, she denied all possibility of pregnancy, and we tried to get a history of it. She was there four months, but positively denied any possibility of pregnancy previous to that and that she had never had any rupture, and still it was there.

## THE CHAIRMAN.

If that is all the discussion we will ask Dr. Mayberry to close.

## DR. MAYBERRY.

I appreciated the fact that when we talked about the time to op-



erate there would be quite a bit of difference, but still we are not far apart. I believe in operating immediately in ectopic rupture of the tube, if there is not too much shock. Sometimes a case will die if you wait to get them to the hospital. I think if we could get the case to rally a little it would be better. In the case the Doctor spoke about, where they had another hemorrhage in every twenty-four hours, a rally and then the hemorrhage again, I would have operated while the rally was on. One of the big points in the diagnosis. When a lady consults you in your office and tells you she is pregnant, you generally give her a talk about the possibilities of albuminuria and insist on an examination of the urine. I wonder why we do not try to find out where the fetus is. There have been so many people die from rupture of the tube without diagnosis. I do not believe I criticise the medical profession when I say most cases of ectopic gestation are not diagnosed until after it is over. We do not think much about it. A woman will tell you that she is having unusual symptoms and yet you will not get along without an examination. I think Dr. Ellison's case was an immaculate conception, and a very interesting case.

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### PUERPERAL SEPSIS—ITS PREVENTION AND TREATMENT

BY DR. G. A. WALL, Oklahoma City.

*Consulting Gynecologist to Wesley Hospital*

Modern and aseptic obstetric technique has eliminated almost entirely from consideration, the question of Puerperal Sepsis, but still, it does occur occasionally, and even when the Accoucheur has used the utmost care. I believe though, that this disease will be almost unheard of in the near future, for the reason that in a very large percentage of cases the condition can be prevented.

This being a large subject, I can only deal in outline, and be as brief as I can the paper will necessarily be rather long. There will be little new, but I do hope there may be something valuable and interesting to say the least—something that may elicit enough discussion to bring more forcibly to our minds the value of surgical cleanliness in the lying-in chamber.

Puerperal Sepsis is a misnomer since it differs in no way from a sepsis at any other time or any other locality. Because of its dreadful morbidity and large mortality its prevention and treatment require heroic and prompt action. The sequelae of this disease are awful to contemplate. Just listen to them: We have pelvic peritonitis, general peritonitis, ovarian abscess, pyosalpinx, pleurisy, pneumonia, endocarditis with permanent heart disease, general lymphatic infection with suppuration and acute nephritis, death ensuing from the poisoning of the heart muscle or the nephritis.

Since in all the cases of puerperal fever about only twenty-five per cent are septic as we understand it, we must know when we have

a true puerperal sepsis and not a sapraemia. The microscope is the test, but clinical symptoms are usually sufficiently clear in most cases.

In puerperal sepsis the onset is gradual, without chill, and the temperature also shows a gradual rise, while the pulse is rapid from the first, usually above 120; the discharge at first watery, odorless, but later purulent, and the microscope shows streptococci, staphylococci with a marked leucocytosis. While on the other hand with a puerperal sapraemia, we find chill usual, temperature rises quickly to the maximum, remains stationary, pulse seldom above 110; the discharge is mucous in character and very odorous and the microscope shows saprophytic bacilli with a very slight increase of leucocytosis. In other words, any case which you see with a full bounding pulse, flushed face, with a sudden onset, you can nearly always know to be a sapraemia, while on the other hand we find with a true puerperal sepsis an insidious onset, pale and anxious facies, with weak, fast and thready pulse. Digital examination of the uterine cavity shows in puerperal sepsis a smooth surface while in putrid infection a roughened one. Secretions taken from the uterine cavity by Doderleins' method will show the exact nature of the infection and this is important for a positive and accurate diagnosis. Any fever occurring during the lying-in period is a puerperal sepsis, hence the distinction between septic and non-septic forms becomes particularly important, when we come to discuss the treatment, for the therapeutic measures applied to one class of cases will cause death, while in another, the same procedures are accepted as proper. A perusal of current medical literature will show the almost hopeless confusion which exists in the professional mind, regarding the nature of puerperal sepsis. Reports are daily made of cases, evidently not septic, which have been subjected to some much lauded method of treatment. To arrive at a precise diagnosis we must give to bacteriology the utmost value. The examination of the discharges has given rise to a great deal of discussion, because until some few years ago, there had been no accepted routine of properly securing them. As the microscopical findings will alone determine the exact nature of a given case, it becomes highly important to adopt fixed rules governing the collection of the lochia. Doderleins' clinic proved that the vulva of pregnant women harbored streptococci in 72 percent of the cases; colon bacilli in 48 per cent; hence, it is evident that a mere examination of the vulvar napkin after delivery, is not a safe guide to determine the true nature of the infection in a given case, because, in 72 per cent pathogenic germs are present before delivery. In the vagina Walthard found streptococci in 27 per cent; Gonner in 50 percent; Koblanek in 10 percent; Stahler and Winkler in 23 percent in one series of cases, in another 50 percent;

while others, like Kronig and Williams, found the streptococcus in only one of 167 and one of 117 respectively. But, the overwhelming burden of evidence is in favor of the presence of streptococci and colon bacilli in the vagina of pregnant women. From the statistics, you can readily see how wholly unreliable would be the examination of the vaginal secretions only. But, you ask, upon what are we to base our diagnosis? Why, upon the secretion taken from the uterine cavity. The burden of proof is in favor of the occasional presence of germs which are known to be pathogenic, in the uterine cavity of puerperal women, who are free from fever, hence we must conclude, that the genital tract may harbor pyogenic germs, without harm. The question that now arises is, under what circumstances do these germs remain innocent, and when do they become virulent?

It has been found by investigators, that pyogenic cocci may be present in the uterine cavity and behave as saphrophytes only, lying upon the surface of the endometrium, not penetrating its substance. So long as drainage is good, they produce but slight, if any, disturbance. But suppose drainage is interfered with, or some trauma occurs to the endometrium, what happens? Then these saphrophytes may assume a virulent character. Since we have learned this, we can account for a number of clinical phenomena: The high mortality attending curetting of these cases; the sudden drop in temperature, followed by a sudden rise, and rapid aggravation of all symptoms, and the rapid recovery under a simple irrigation, and packing of the uterus, with strong iodoform gauze. If under this treatment, a case does not rapidly recover, the case may be laid down as one of streptococcus infection, acting as septic and not as saphrophytic germs. Right here, it might be well to describe the technic of obtaining the lochia by Doderleins' method. Bring the patient to the edge of the bed in the dorsal position, retract the perineum by a sterile speculum (Auvards selfretaining being the best) so as to expose the cervix, which is grasped by a forceps and pulled well down to the vulva, which maneuver causes the cervix to gap widely. The cervix is then cleaned carefully by means of a sterile cotton swab, and a curved or straight glass tube is then passed into the uterine cavity to the fundus, care being taken that it does not touch the vaginal walls or vulva: By means of a suction bulb, the lochia is drawn into the tube, which may then be sealed at both ends by means of sealing wax; you may then send the tube to your bacteriologist for examination. We do know, that in the vagina and vulva of pregnant women, pyogenic cocci and bacilli reside in a large percentage of the cases, without causing any symptoms. We also know, that they can be harbored in the uterus without producing any lesions, while again, these same germs may produce septicaemia. How do we explain this? Easily: Loss of resistance. Certainly if the vaginal



secretions can lose their bactericidal properties, the uterine can do the same. While the virulence of the germs has much to do with the degree of local and general lesions, no one factor, has so determining an influence upon the degree and occurrence of infection, as trauma inflicted upon the uterus. The late lamented Pryor, than whom there was none greater, believed that many of the cases were cases of auto-infection. He says: "All puerperal sepsis cannot be charged against unclean fingers, for Ahlfeldt and Walthard have reported many cases, in which fatal sepsis occurred, without vaginal examination, and Stoltz has found more cocci in the vaginas of unexamined women, than in those examined. Furthermore, the wearing of rubber gloves has produced no change in the puerperal morbidity, as shown by Sticker and "Kustner's Clinic." If the gaping vulva will admit germs into the vagina, the open cervix will surely admit them into the uterine cavity. It is admitted by all, that the morbidity is largely governed by the number of examinations, before and during labor—no matter what the body is, which penetrates from the vulva into the vagina, sterile or unclean, it will carry germs into the vagina in 72 per cent of the cases, for it is in this number that we find germs on the vulva.

Hirst says: "The majority of puerperal infections are traceable to the insertion of pathogenic germs by the examining finger. Many hundred cases have been traced directly, to the association of the physician with infectious diseases, and there is scarcely a surer way of avoiding puerperal sepsis, than by abstention from vaginal examinations."

The infectious inflammation of a vaginal wound is almost certain to spread upward, for the conditions are even more favorable to a microscopic growth, and to a systemic invasion, in the uterine cavity and in the tubal canals, than in the lower portion of the genital tract; hence, we find that the vast majority of puerperal infections have their starting point within the womb. It is generally conceded that the resisting power of the tissue, under mucous membrane, is less, the higher the micro organisms are found in the genital canal. There is no limit as to the discussion, as to how the infection is caused, but what interests us all the most, is, how to prevent it and treat it. It is unnecessary to dwell long upon the facts, that our lying-in chamber should be sunny, well ventilated, should not possess a stationary wash stand, or any other connection with a sewer, neither should it be close to a bathroom. If the house is heated by a furnace, the intake for the air, and the sanitary conditions of the cellar should be investigated. To insure the greatest obtainable degree of personal cleanliness, I always direct that my patient be given a full bath at the beginning of labor, with especial attention to the vulvar and anal regions. This bath is given by the nurse, or some compet-



ent attendant, with plenty of rubbing with a soft brush or coarse wash rag; after the bath the patient should put on clean clothing throughout. I also give at this time, a good large soapsuds enema to empty the lower bowel thoroughly. This, I believe to be an important matter, for obvious reasons. I think it well to wash the vulva before and after any examination, with some antiseptic solution, and for this I prefer Lysol. Following labor the uterine cavity should be explored, to see that it has completely emptied itself of any membranes of placenta, which will act as a focus for bacterial invasion. It is unnecessary to lay stress on the fact, that the physician should himself, be surgically clean and the same applies to the nurse. All instruments used about the parturient woman should be sterile. Bad management succeeding labor, has been the cause often times of an infection. A word as to douches: I never use a douche during the prevalence of lochia rubra and seldom afterward, unless there be much odor to the discharge. I watch my patient carefully during the week following labor, for this danger signal, (the odor) which it often is, of impending trouble, that the uterus may be becoming the seat of a septic process, which may endanger life. These douches I always give myself, carefully cleansing the vulva beforehand, and always using a sterile speculum in order to lessen as much as possible the introduction of germs from the vulva, toward the raw and gaping cervical opening. The custom of keeping the puerperal woman on her back for days after labor, is to be condemned as pernicious and unreasonable. I always require my patients to lie on the abdomen, thirty minutes each day after the second, and my reasons therefore are that the uterus after labor is a large and heavy body, and its weight carries it back onto the rectum, predisposing to retroversion, and also preventing free drainage, thereby provoking sub involution, and also retaining the lochia in the uterine cavity, until they become putrid and form a nidus for infection. In uncomplicated cases I permit my patient after twelve hours, to slide out of bed onto a tall slop jar to empty the bladder, which act, permits any clots which may remain in the uterus or vagina to be expelled, before putrefaction occurs. During the first five days the vulva is carefully cleansed twice daily with a mild antiseptic solution, and sterile pads worn. Now having used all known precautions, and still getting a puerperal sepsis it then becomes necessary to act quickly, and intelligently, if we are to save our patient from long years of morbidity, or even death. Since the disease is a general infection, as instanced by its sequelae, we have two considerations to influence our selection of treatment: (1) We must combat the disease within the pelvis; (2) We must counteract the general infection. This is done by isolating the infected uterine cavity, by means of iodoform gauze, and by producing a logical and systemic iodism, to destroy the cocci.

The germs penetrate the endometrium at the placental site into the muscularis, through the lymph channels and blood sinuses; after reaching the periphery of the uterus they extend to the general circulation rapidly, through lymph and venous systems. The time which elapses between the entrance of the germs into the uterine musculature and their presence in the perimetric tissues is brief. After we have been assured that we have an infection by the streptococcus, staphylococcus or c. b., in a mild form, the method of Pryor appeals to me strongly. Wash out the uterine cavity with a weak Thiersch's solution, and then pack the uterus full with 10 per cent or 20 per cent iodoform gauze. This can be done without narcosis, and if the infection is superficial the amelioration of symptoms is sudden, and nothing more is needed except to remove the packing in three days and two days later remove it, without renewal. This process is a safe one to follow in all the milder forms of infection, whether due to septicemia or sapremia. Before its use it is best to explore the uterine cavity digitally, to discover and remove fragments of placenta or membrane, should they be present. If this method does not control the condition within six hours, we may then be sure that the germs have penetrated deeply into the mucosa, and we have to deal, not with a sapremia, but a true sepsis. We must now assume a general invasion and the treatment is radically different. For this condition, I believe Pryor's procedure to be the best. Some years ago he advanced the theory of the bactericidal properties of iodine. Working along this line he evolved his operation for puerperal septic infection. He first dilates the cervix, cures the uterus carefully, irrigates with a saline solution and packs with ten per cent iodoform gauze. By a broad incision the posterior culdesac is opened, when a large quantity of fluid escapes; this may be sero-lymph, seropus, or pure pus. If there is much effusion of lymph the organs may be matted together, and if so, all adhesions are rapidly severed with the fingers. Then lift up the uterus with a long retractor and depress the posterior vaginal wall. Generally a knuckle of intestine will present, and from its surface you pick off some lymph or fluid and keep it for examination. Now pack the pelvis full of iodoform gauze, 5 per cent strength, using strips of gauze eight inches wide and one yard long. The number required is one of judgment on your part. Pass the first one well to one side of the pelvis over the iliac vessels and extending to the pelvic brim. Hold it in place by the retractor while other pieces are placed alongside, so as to completely pack the pelvis from side to side, and to be in apposition with the posterior layers of the broad ligaments and uterus, and in contact with that portion of the pelvic peritoneum, which overlies those lymphatics and veins, that carry the infection. The gauze should not protrude from the vulva. A self-retaining catheter may be employed,

or better still, draw the urine every four or five hours. In severe cases cardiac stimulants, such as digitalis and moderate doses of strychnia; also nitro-glycerine, to produce vascular dilatation. Heroic doses of strychnia in this condition are bad, because they induce contraction of the arterioles, a condition not desirable in streptococcus infection. The first local effect of the operation, is an enormous out-pouring of serum by the peritoneum, sufficient to soak the vulvar pads quickly, making their frequent changes necessary. The urine is drawn every three or four hours, measured and tested for iodine by Alfraise' Test. In from three to five hours, a marked reaction from iodine occurs. In order to keep up the kidney function and aid them in elimination, give saline enemata, or better still, the Murphy method of proctoclysis may be used. Mild systemic effects from iodine sometimes occur, but pass away quickly. Almost immediately after the operation the temperature drops. Occasionally a violent chill occurs immediately after the patient regains consciousness from the ether. Combat this with vigorous stimulation, with hot brandy, per rectum, and nitro-glycerine hypodermically and heat externally. The dressings are removed and renewed in five days, without anesthesia. Then renew them every three or four days until the wound is healed. In purgation, no calomel is used, because mercury in the presence of iodine may produce poisoning. My favorite drug is mag. citrate given in glassful doses preferably, ice cold.

Pryor, who had a large experience with this treatment, shows its superiority over any other method. By curetting alone the mortality is 22 per cent; antistreptococcus serum alone 33 per cent; hysterectomy 55 per cent, and let alone 2 per cent to 25 per cent; Pryor's series of cases showed only a mortality of 2 per cent, and mostly all of them were of the gravest type when he saw them, and all who lived suffered but slightly from any morbidity. A word as to serum therapy: It seems to be generally conceded by the most eminent authorities that the use of the serum alone, has not been at all encouraging in this condition. I believe, though, that in conjunction with the Pryor treatment it might be of value.

In conclusion, quoting Oliver Wendell Holmes: "That the woman about to become a mother, or with her new-born infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches her aching limbs. The very outcast of the streets has a pity upon her sister in degradation, when the seal of motherhood is impressed upon her. The remorseless vengeance of the law brought down upon the victim by a machinery as sure as destiny, is arrested in its fall at a word, which reveals her transient claim for mercy. God forbid, that any member of the profession to which she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly or selfishly."



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## THE CHAIRMAN.

Let's have the discussion of the Doctor's paper.

## DR. OLDHAM.

This is a most excellent paper. The odors arising are usually due to the secretions. After the flow becomes lessened, the force from above is not sufficient or the quantity is insufficient to flow over the peritoneum and the odors result from infection in the vagina. I never use a douche in this condition, but prefer to mop it out. This will quickly eliminate the odor and add materially to the comfort of the patient. I believe no physician is justified in treating a case of labor without the use of rubber gloves. I think the same procedure as to sterilization should be carried out when rubber gloves are used as when none are used.

## DR. HARTFORD.

I want to speak in regard to the treatment of septic infection. It seems to me we are getting away from operative interference in this condition. There is no question about it but that our leading men are discarding this line of treatment even in cases where there is accident. We notice the review of the Chicago society, recently, and it brought out the fact that the mortality was higher in cases not treated that way. I wish to give the statement made by Dr. Davis, of Philadelphia, in a case he presented before the Congress of Surgeons, last November. He said, "Gentlemen, I am glad to bring before you this case, not that I am glad to have the case, but to show it to you. Here is a case in the fourth week that the temperature was from one hundred and one to one hundred and two, and we are glad to have her doing so well. And I want to say to you this case has had no vaginal douche and has had no uterus treatment whatever. She has not been treated that way. The treatment is supportive strychnine and whiskey."

## DR. BERRY.

Some of you spoke of the curet. If I had any choice between an automatic revolver and the curet, I think I should take the revolver. I treated my gonorrheal cases, experience I had in the hospital, with the use of alcohol, and I put a light packing in also, and I never lost a case. I never had very many. I do not think the curet is the proper thing, and I want to insist on that, and I believe as our experience grows more we will find it is killing patients which otherwise would get better.



DR. MAYBERRY.

I consider an odor following child birth not a bad sign. If I was going to look for things pointing to infection, I would look for a watery discharge without odor. I do not like to see it no more than I would like to see it coming from the abdomen without odor. I take issue with the Doctor on the odor question. I think there are three signs. You have acceleration of the blood and temperature and chilly sensations.

DR. LAMMERTON.

In regard to this discharge, I had a case where there was absolutely no discharge, except a little water, and the patient had a temperature of 100 and 101, and pulse 130 to 140, and we packed the uterus with gauze and the next day there was an offensive discharge and the patient was normal, and next day the discharge ceased, and the fourth day after that our patient died, and I am thoroughly convinced when we have a slight watery discharge with no odor the patient has no chance to recover. If we have a discharge that is foul she has a hundred per cent better chance to get well.

DR. CLARK.

About this question of temperature. My opinion is, we usually have a high temperature and then a falling temperature after a short time. That is the cause of the depression that comes from the high-grade of infection. I think nothing would be better to wipe out the uterus than Harrington's solution. I have used alcohol and other things, but I think that is the best. Sodium and alcohol are good, but from the standpoint of drainage we are building a dam. You can stop the secretion with iodine, but we do not want to do that. I should hesitate very much to put gauze in the uterine canal. I have been unfortunate in my treatments with gauze. I know a man that uses the gauze in a plug form, and I think the only way to use it is to twist it in the form of rope.

THE CHAIRMAN.

If there is no further discussion I will ask Dr. Wall to close the discussion.

DR. WALL.

I have little to say in closing. I think one of the Doctors misunderstood me. I do not believe in odors following my cases. I like to have a sweet smelling odor. Whenever I find an odor I think I have left something. When I get an odor I wash out for that, for I think something is wrong. I believe, after you have the clinical symptoms of puerperal sepsis you will not cause trouble in irrigating. That is, if you do not irrigate too high. I do not think that gauze will hinder if used properly. And, I do not think any one using the curet properly does much harm.

## TREATMENT OF HEMORRHOIDS WITH INTRODUCTION OF A NEW PILE CLAMP.

WM. D. BERRY, M. D., Muskogee, Okla.

Hemorrhoids, signifying a "flow of blood" are caused by obstruction to the rectal circulation through the hemorrhoidal veins. Hemorrhoids are almost unknown in children, but from puberty to old age it presents itself in every degree of severity, both external and internal to the sphincter muscle.

This condition is perhaps the most widely spread affliction to which man is heir.

From time to time treatments of every description have been employed and discarded, some of which were dangerous, some not effective and some gave partial relief, but fortunately today hemorrhoids are capable of radical cure with an infinitesimal risk.

The palliative treatment should be borne in mind by the Surgeon, inasmuch as the majority of moderately slight hemorrhoids can be cured and avoid an operation by strict attention to hygiene and diet. Errors to be corrected are costive habits, long straining, over-eating, lack of walking, excessive smoking and rectal tenesmus from any cause, simple regulation of diet, mild laxatives to secure a regular evacuation of bowels each day, a cold enema after evacuations, strychnine tonics, soothing ointments or suppositories will in a few weeks relieve the hemorrhoid engorgement and restore tone to the parts so that infrequency of protrusion will be followed by complete retention. This treatment, of course, is effective only in the acute stage of the disease. If the condition has existed for along time, it will not be sufficient and unfortunately the physician is not usually consulted until after the time for palliative measures to be of service, and an operation will have to be employed to obtain permanent relief.

Many are the simplified methods of local treatment hoping to avoid the trouble and supposed risk of an operation, which have attractions for the physicians who do but little surgery, but more especially for the itinerant, who seeks patronage for the so-called non-operated and bloodless methods.

First among these, for general use, is the injection of carbolic acid. It is attractive because of its simplicity but more dangerous than any other. It has a risk of pyemia and hepatic absorption that may be followed by abscess of the liver, which is one of the most serious conditions to be encountered. Many patients have fallen to the care of other physicians, who have died pyemic of whom the advertising quack never heard after he made his carbolic acid injection. It is claimed, however, by some reputable physicians, as having a value in certain cases in which an anæsthetic cannot be borne, but we consider the risk too great to be employed under any circumstances.

It was once believed by some that simply stretching the sphincter

would cure hemorrhoids, but except in some very simple types was found to be of no value.

So, also pinching up of the mucous membrane over the top of each pile and ligating with silk was thought to be enough to excite deep enough cellular inflammation to solidify the mass, but this has been wholly abandoned.

Ignipuncture with the point of a cautery, simply penetrating the hemorrhoid, which in some cases may happen to obliterate the blood vessel, but may excite bleeding from the puncture, or the wound may beget secondary hemorrhage, or be wholly ineffective.

Another operation which, while it has not gone out of use altogether, it would be better if it had. The one to which we refer, is Whitehead's operation. In isolated cases it may have some good feature, but the weak point of the operation is the possibility of a stricture and that possibility is so great, it is almost unavoidable, in fact, a Whitehead's operation, we believe, is always followed by a stricture to some extent and it is annoying in proportion to its severity.

Surgeons of the larger experience have narrowed down the operative procedure to two operations, so will discuss them in the order of their general acceptance.

First is Allingham's Method of Excision and Ligation. Will not takethis operation up in detail, as it can be found in most standard books on surgery, will only call your attention to a few important features of the operation.

As everyone understands the patient should have two days of laxative preparation and an enema to cleanse the rectum before operation. It is done with local anaesthetics of all kinds, but usually with a general anaesthetic, that, however, must be left to the discretion of the operator. The operation is done with but little risk with ordinary skill. The principle on which it is based is that one nutrient artery supplies each pile, and that it descends into the tumor close under the mucous membrane. Excision of the tumor until it is only attached by a pedicle in which is this artery, ligation of the pedicle and cutting away the tumor, leaving the cut mucous edges to fall together. Healing is usually rapid with an insignificant scar. It has been modified by saturating the cut edges of mucous membrane, which is unnecessary and may tend to confine exudates and add to the time of the operation. The most important things to be borne in the operator's mind is first to leave a wide strip of mucous membrane been modified by suturing the cut edges of mucous membrane, which should be cut long. This operation has the foremost place in surgical appreciation for hemorrhoids today.

Second in popularity, and which, to my mind, in most cases, is preferable to any other, is the clamp and cautery method. It can be

done quickly, safe, bloodless and aseptic and with less pain than any other operation. By this method the patient can be allowed to get out of bed and attend to business in one week, which is earlier than by any other method.

The same preliminaries having been adopted as in Allingham's operation, the three piles bearing poles, one anteriorly and two laterally, which if caught, in three masses and cauterized, the remaining hemorrhoids will usually disappear spontaneously, but if the operator sees that it would be best in an individual case to cauterize other points, it would be safe, provided, healthy mucous membrane be left on each side of each mass. These points are seized one at a time and held by a clamp with sufficient traction to allow a goodly portion of the tissue, including hemorrhoid to be caught in the bite of a flat crushing clamp. This crushing clamp should be applied longitudinally with rectum and should give equal pressure to the entire bite, crushing the base of pile including artery to a linear mass, which if left in place for only a few moments would probably of itself so crush artery as to produce occlusive endarteritis, but the operator should not rely on this possibility. A certainty of controlling hemorrhage is obtained by burning down the entire mass to a tough remnant, which can only be done by heating the cautery until it is just beginning to get red. We want the tissue baked whereas a very hot cautery would cut it. For a cautery we use an ordinary soldering iron of small size, which can be heated anywhere in any way desired and answer every purpose. The baking of this stump creates an aseptic surface and coagulates and obliterates the vascular stumps. These stumps when released retain their linear form and return to the rectum as longitudinal folds. The cutaneous margin ought not to be caught in the crushing clamp as the pile is above that point and the burned skin may be subsequently more tender as a result of the scar.

To protect the surrounding tissue from the heat of the clamp or the possibility of cautery slipping, it can be most effectively done by placing underneath the crushing clamp, a piece of asbestos board three inches broad and four and one-half inches long with a groove cut out of its center longitudinal with its long axis one-half inch broad and two and three-fourths inches long giving it somewhat of a horse-shoe appearance. This board can be sterilized by passing through a flame. If suitable asbestos cannot be secured, a shield of same dimensions can be cut out of ordinary pasteboard. This shield is slipped between the crushing clamp and the patient, which will give perfect protection.

If the operator should stop at this point the patient would suffer great pain on account of pressure due to swelling, the superficial hemorrhoidal veins having been destroyed, the arteries continuing to force blood down will, of course, cause oedema on account of the interference with return circulation, which, however, is easily relieved



by making multiple punctures with a sharp narrow scalpel through the skin around the anal orifice.

A suppository of ext. of poi gr. I is now inserted in the rectum and a tube, lead pencil in size, gauze wound around it making it the size of your little finger, about four inches long, well lubricated with vaseline, is also inserted into the rectum with a safety pin through its protruding end. This tube has a three-fold value, first as a "tell-tale" to notify of any hemorrhage, second, as a vent for the escape of flatus, third, as a means of giving entry to an enema on the fourth day after which fold and clamp or ligate protruding end, which will be blown out with bowel movement, often without patient's knowledge.

Those who have condemned this operation have only done so on the claim of the one risk, which is the possibility of post operative hemorrhage from reopening of a crushed stump, which should and could never occur if stumps had been properly crushed and cauterized.

The thick portion of a hemorrhoid is always far down near the junction of the skin and mucuous membrane. If the clamp used has hinge in blades near their center, "scissor-like" when applied will naturally catch the thick portion of tumor where the blades are closest together and the narrow portion of tumor where the blades are widely separated. Therefore, when an effort is being made to crush mass the thick portion would be well crushed and the narrow portion not be crushed at all.

With the view of correcting this defect, I devised this crushing clamp (Fig. 1), with hinge in end of blades, so that when closing it on



Figure 1 shows anterior view of clamp. Is  $10\frac{1}{2}$  in. long. Curvature of blades makes it easy to apply to hemorrhoidal mass.

a hemorrhoidal mass, that portion of blades which surround the narrow portion of mass will be close together and crush that tissue just as firmly as any part of the mass.

One other feature of the instrument is by changing fulcrum from near the center of blades to the end giving it much greater leverage, which permits doing away with the old set-screw and the sub-

stitution of a simply effective catch which can be operated easily and quickly.

I had the Kny-Scheerer Co., make this instrument from a wood pattern for my own use, but afterwards sent it to Dr. Edward S. Judd of the Mayo Clinic, Rochester, Minn., and asked him to try it out and let me know what he thought of it. After having kept it for about one month he made the following statement:

"The pile clamp you sent me sometime ago was duly received. I have used it several times and like it very much."

*(Read before Muskogee County Medical Society, Oct. 14, 1912.)*

### **CASE REPORT --- EXTRA UTERINE PREGNANCY.**

BY J. A. BOWLING, M. D., Alva, Okla.

Mrs. C. G. L., age 35, entered hospital Oct. 23, 1912.

During childhood had measles, mumps and whooping cough, at age of four she had abscess of left side.

Menstruation commenced at thirteen, periods regular, without pain, but a faint feeling. She was married at the age of twenty-two. Six months after marriage she aborted, losing twins, at about the third month. She has never regained her former weight or health. Before her abortion she weighed 92 pounds, since then 82 to 86 pounds.

About two years ago she had a sick spell, with soreness through lower abdomen, accompanied with pain, cramps and sick fainty feeling, and distention of abdomen, in bed five days when flow commenced, giving some relief from pain. She continued to flow slightly for ten weeks. She also had gaseous distention of abdomen.

She was under the care of a physician all this time without relief from the hemorrhage. Finally she went to an osteopath, who relieved her with three treatments.

Four weeks before coming under my care, she began feeling badly, being her regular menstrual period. She suffered with pains through bowels, slight nausea during pains, flow lasting one day and scant.

In two weeks flow commenced again, only slight with soreness and pain. On Sunday and Sunday night following, flow and pain increased, on Monday felt much better, but was awfully bloated and on Tuesday morning while dressing was taken suddenly with pain and weakness.

Owing to the distance from Alva (about 20 miles), they decided to come to town, where they could get more attention. So they started in the afternoon, while in Whitehorse, they 'phoned me to meet them on the road, which I did, about seven miles out. As soon as I saw her I recognized that she was suffering from the loss of blood, and asked if she was having hemorrhage and she said yes, but she appeared so weak she could hardly talk.

As there was several standing by, I did not go into details, and thinking perhaps she was having an abortion, I gave her 1-40 gr. strychnina, changed to our automobile and came to town as fast as possible. I wanted to stop at the hospital but her husband said no, but would go to her brother's.

After putting her to bed and removing her clothing, I began questioning her and found that she was flowing slightly. It began to dawn upon me that she might be suffering from internal hemorrhage, and upon digital examination I found a mass in the right side. but she was so tender and the abdominal walls so tense I could not outline the pelvic contents to any great degree, and besides I was afraid that I might excite internal hemorrhage, and as she was suffering from shock and very weak I thought best to let her rest awhile and went to my office. But within one hour they telephoned me to come at once that she had fainted again. On my arrival she had rallied and I asked her husband to take her to the hospital as I believed it necessary to operate, as my diagnosis was ruptured ectopic gestation, but they wanted to wait and I could not convince them of the necessity at that time. About nine o'clock p. m. I called them to find out how she was, and they said she was no better that the medicine did not relieve her pain. I told them that I was uneasy about her and would come and see her; they said alright. I called Dr. Sands and asked him to go with me, but when we arrived she seemed to have rallied so we thought that it would be best to wait until tomorrow morning. At about 8:30 a. m. October 23rd, that is the next morning, Dr. Herod went with me and procured some blood which showed hemmoglobin 50 per cent, whites 10,000, reds 1,300,000. In about one half hour they again sent for me, as she had fainted. This time I insisted on removing her to the hospital, which was only one block away. but her husband said on account of his father's wishes he wanted Dr. Butts to see the case before an operation was done. Dr. Butts saw the case at 11:30 and confirmed the diagnosis, the operation was delayed until 2:30 on account of getting the sterilization complete. The patient went on the table with a pulse of 144 very weak, temperature 99.6. On opening the abdomen it was found to be filled with clots and liquid blood, which poured to such an extent as to fill the belly pad and run to the floor.

The right tube had ruptured into the broad ligament, and on account of adhesions we had some trouble in separating the parts to be removed.

After removing tube, ovary and sac, and cleaning up the field we examined the left side and found pregnancy of the left tube, also which was removed without difficulty.

The abdominal cavity was then flushed with normal salt solution after which the cavity was filled with normal salt solution, and closed without drainage.

The pulse at the close of the operation was 160 and very weak. The patient was put to bed with hot water bottles and proctoclysis commenced, and hypodermoclysis under each breast.

By morning she had rallied nicely and today, October 25, her pulse is 106 and temperature 98 1-5.

One of the interesting points of this case is the rarity of double extra uterine pregnancy on one side in every 500 pregnancies and according to the Mayos 100 consecutive operations for ectopic gestation they had one on both sides that would mean one double extra uterine pregnancy in 50,000.

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### REPORT OF A CASE OF CHRONIC GONORRHEA TREATED WITH PHYLACOGEN.

W. E. STEWART, M. D., Norman, Okla.

HISTORY—W. H. W., Fireman, aged twenty-six, contracted gonorrhea one year ago. On examination, I found a swollen tender prostate and a severe orchitis of the left testicle. A microscopic examination of the urine revealed a few rod shaped bacilli, streptococci and staphylococci, but no gonococci. At a second examination a sound was passed and the prostate massaged. This time gonococci were numerous.

This patient had received the usual treatment for chronic gonorrhea for several months without improvement in symptoms or cessation in the discharge. As he had not responded to other methods, I was convinced that it was a proper case for the gonorrheal phylacogen.

The initial dose employed was three C. C., this was followed by a severe reaction, within three hours the patient was nauseated and had a severe chill, followed in one hour by a temperature of 102° F.

The following day many long shreds appeared in the urine along with streptococci, staphylococci and gonococci.

Two days later a second dose of phylacogen, four C. C., the reaction and urinary findings were similar to those observed after the first dose. Two days later five C. C., was given, again a severe reaction with a hard chill in four hours and a temperature of 103 1-2° F. with nausea and vomiting. Five days later another dose of five C. C., was administered. This time the reaction was light, only slight nausea and a temperature of 101 1-2° F. Two days later the orchitis was decreased in size. I massaged the prostate and then had the patient to urinate. The urine showed many pus cells, but few microorganisms.

Three days later the patient was elated that he could shovel coal all day without pain, the first time in many months. The testicle was



reduced to its normal size and the prostate was not enlarged. At this time a final dose of phylacogen, six C. C., was given, but slight reaction followed and the patient was discharged as cured.

### DR. FISHMAN'S BERLIN LETTER.

The German Empire exercises a most paternal relationship over its citizens and I guess that's the reason it's so fondly called the Fatherland. It cares for them everlastingly from birth through old age, and provides for the unfortunate, sometimes directly, but more often indirectly, almost as a father does over his children.

From the point of view of a medical man, I found the provisions that the government has established for the care of the sick, injured, and the aged of the greatest interest. Being in close contact with the sick, as one sees them in the hospitals and polyclinics (dispensaries), I was at once impressed with the widespread system of sick benefits and insurance that is provided nearly every individual of the poorer and middle classes.

The Imperial Insurance Acts have been in force now for over thirty years and have been so successful that it now provides compulsory protection for nearly all of its working men, as well as employes in nearly all lines, whose incomes are moderate. It was established "in order to preserve internal peace and to foster safety and protection to the Fatherland."

Within the last three months England has established a law upon a similar basis, although the Englishman is unwilling to state that it is patterned after the German law.

The Sick Benefit Act provides that every employe whose income is less than 3,000 Marks (about \$710) a year, be compelled to buy monthly insurance stamps, which may be obtained in every postoffice, and have his employer sign these stamps after having pasted them in a book, supplied for the purpose. This, of course, is supervised by police regulations that no one who comes within the law is exempt. Of the cost of these premiums the employer pays two-thirds and the employe the other third. Frequently in case of a housekeeper who employes a servant, the former undertakes to pay the entire premium, which amounts to about one Mark (25 cents) per month.

Each trade and vocation has its own branch, for example, the stenographers, carpenters, masons, etc. Each has its own organization and the money obtained from the sale of these premium stamps is held in trust by the government.

The committees which have charge of the affairs of these branches are made up of employers and employes, but the latter have a representation of two-thirds of the committee, although they receive the benefits and pay but one-third of the premiums. It is the

duty of the employer to see that his working men are insured and if they are not provided for, the former is held responsible and is required to pay all expenses in case of illness. The entire system then is essentially established for the interests of the working people, and indeed for the poorer classes, for there are also provisions for the individual who conducts his own business, but whose income is below a certain amount.

In the farming communities, the participants include alike the employers and the employees who have mutual interests, but in these cases the affairs of the branch organizations are managed by officers of the state. Besides these, the labor and trade organizations have their private benefit funds just as they do in our own country. The workers in hazardous trades are compelled to provide accident insurance so that they are protected by this means from losses that may occur in case of occupational injury or illness.

The Invalid and Pension Act provides monthly benefits for those who show payments for a certain number of years and in all cases after the age of 65 or 70 years, depending upon his vocation.

In case of an unmarried girl, who marries, a certain amount is returned to her at the time of her wedding, provided she has paid premiums for 200 weeks or more. The widow is also provided for and a certain amount is received for each child under 15 years of age.

The organization provide medical attention by employing physicians and also pay for the care of patients who are sent to hospitals. Each specialty is well represented on the rolls of the medical attendants. Certain branch organizations have their own hospitals and convalescent houses. The fundamental purpose of the sick benefit provisions is not to spend all of their money in the care of the sick, but rather to conserve health by providing proper workingmen's homes, proper food for children, summer outings, etc. The system is so extensive that the total income for 1910 was nearly 900 million marks and took care of nearly six million cases, while there is over two and one-half billion marks assets in the trust fund.

Naturally the practicing physician is deprived of a good percentage of people who might have been his patients if these laws were not in effect. But when one remembers that after all, the poorer people only are provided for, it leaves the physician with a private practice only the better classes at his disposal. Besides, it must be remembered that we have in the United States about three times as many physicians for the population as there are in Germany, so that the system does not produce as much discomfort to the profession here as it would in America.

## EDITORIAL

### THE YEAR'S ACCOMPLISHMENTS IN MEDICINE AND SURGERY.

Physicians, like merchants, are in the habit of checking up occasionally and taking stock in themselves and their achievements and those of a retrospective and reflective nature get much good out of the process of invoicing.

The year 1912 has been especially rich in medical achievement and the net results have placed the profession, as a whole far in advance of the year before.

General surgery has seen much to be proud of. While the abdominal and gynecologic surgeon has produced nothing greatly revolutionary the general improvement in technique alone, the improvement in small detail has been of great good in lessening the mortality and suffering of the patient as a class. Perhaps the most rapid advance has been made in the new surgery of the bones, joints and tendons and while here too no new thing has been adduced the improvement in technique, the fixed principles involved and to be respected by the surgeon have been so clearly brought out that it amounts to virtually a new discovery. The operative treatment of osteomyelitis, chronic and acute is fixed on undisputable lines it would seem; the operative treatment of injuries of the bones is becoming fixed along sane lines and the tendency to treat every fracture as an operative one on slight pretext has become greatly modified and the tendency is strongly to conservatism of each case, which is the proper attitude.

The whole field has been improved in the introduction of simplicity in treatment wherever possible and the net result is one to be congratulated over.

In the field of general medicine there seems to be strong tendency to the simplification of materia medica. A protest against the enormous number of drugs and compounds has gone up almost universally resulting in the discarding of a great deal that is either useless or duplication at the hands of physicians and the tendency to a restricted list of known and useful drugs is voiced in able arguments of interists and others in position to know.

The Public Health Service has never been more active and watchful than during the past year. While typhoid statistics are not obtainable there is every reason to believe that the states of the southwest especially have been comparatively free during 1912.

The first of the year ushered in a rather wide spread epidemic of meningitis, but the number of cases were rather small when the area of country and population involved is taken into consideration. The prompt meeting of this condition by both the physician and the Health Boards is a matter of congratulation to all concerned and the almost universal success of the serum treatment of the affection is another paen to medical progress.

In the matter of the specific treatment of syphilis with salvarsan and its follower neosalvarsan, these remedies have a fixed place in the hands of physicians and while they are not considered as whole cures of the affection they are accorded the top of the list by many, but there is a well founded disposition to use them with arsenic, iodides and mercury as heretofore practiced, which seems to be about the consensus of opinion.

The great work of the Council on Pharmacy and Chemistry of the American Medical Association goes on apace. It is remarkable that the average physician does not appreciate the magnitude or worth of this Board. No one system or organization in any line of the profession has ever approached this body in running down that that is bad in medicine and unearthing fraud in it and around this Board all the venom and fire of adverse criticism, wilful misinterpretation of motive and adroit misrepresentation is hurled, but the more they are criticised and the more we investigate what they say the stronger they become fixed in our affections and the average physician who knows of their work is strongly inclined to accept their findings as the last word and appeal no further. It has become necessary for the attention even of state owned medical publications to be called to the findings of the Council anent unethical advertising and a great deal of advertising matter formerly carried, which on investigation has been found wanting, has been discarded. This improvement has reached in a way some of the more independent journals, but it is a lamentable fact that the spirit of altruism is overcome by the spirit of commercialism and greed in many of our privately owned medical publications and their advertising columns, which should be clean are remarkable for the frauds flaunted in the face of the reader.

In England the great crisis on account of the Medical Insurance Act is in evolution. It is impossible to foresee the final result of the struggle, but many believe they see in this fight between paternalism on one side and individualism on the other a distinct lowering of medical standards in those countries in which such law is enacted as is now proposed in England.

The medical profession is to be congratulated on the further raise of the standards of education. The small or rather poorly equipped school is rapidly disappearing and institutions are taking



its place well enough endowed or provided to give the student all he should have in the matter of thoroughness and advanced technique.

As a profession we are becoming more critical of newer things that are offered us and while this conservatism is to be commended the great mass of investigation is placing before us the good from the chaff in a much more usable form than ever before all of which is of benefit to the people generally who are still inclined to regard us individually at least as their protectors.

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### PREPARE FOR 1913.

County Secretaries who are alert will have laid their plans for re-organization for 1913 by the time this is issued and will have their members advised that the time for collection and remittance of dues is at hand.

Nothing is so essential to the well being of the County Medical Society as the Secretary and promptness on his part goes far toward making the organization worth while. In fact, it may be said that no secretary, no society.

It is regretable that in some portions of the state the county societies have been dropped from the rolls and reported to the A. M. A., as non-members solely on account of the failure of the county secretary to remit money they had paid in. This injures not only the secretary, but places the office of state secretary in a bad light, as it is difficult to make such members understand that no certificate of membership can be issued to them as long as their present status remains.

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### TEXAS DOES NOT WANT TUBERCULAR INDIGENTS.

Governor Colquitt, of Texas, has issued a circular letter to the Governors of all states calling their attention to the futility of sending tubercular patients to Texas, who are financially unable to give themselves proper care and to the lack of free hospitals for stranger consumptives in the state; he quoted resolutions passed by the South-western Conference on Tuberculosis, held in Waco, Texas, April 16th, in which the attention of all interested is invited to the facts that the state by reason of its ideal climate is becoming overcrowded with the poor of other states; that there are no free hospitals for other than citizens; that owing to the large immigration of healthy people, there is small chance for employment of sick persons, factories are limited, cheap labor is performed by Mexicans and negroes and that the demands for charity have exhausted the patience of the people.

The conference suggested that each person coming to the state with view to restoration of health should be provided with ample

funds for a year and that there was no hope to receive benefit earlier than that length of time. They further suggested that each community in other states provide suitable hospitals, dispensaries and visiting nurses and care for their own people.

The conference also declared that the care of tubercular strangers in the Southwest was an interstate problem and adopted resolutions instructing an interstate committee of the conference to draft bills and present same to Congress for action.

Delegates were present from Arizona, Colorado, Kansas, Nevada, Oklahoma, Texas and Utah.

Before this it has been suggested that Oklahoma do something in the way of providing sanatorium treatment for her tubercular people, but of course, such matters are a long time in being brought to a head and putting the necessary schemes to that end in operation require a great deal of preliminary work before the plans are in working order.

Oklahoma has an average elevation above the sea level of about 5,000 feet in the western tier of counties and the climate is said to be very favorable for the treatment of lung and throat troubles. The eastern part of the state has many good locations with an elevation above the sea level of from one thousand to eighteen hundred feet and with these natural advantages we should do something toward maintaining our unfortunate tubercular population. The matter should certainly be considered by our new legislature and some start made for a permanent organization for the suppression of tuberculosis.

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### **SOME WAILS FROM CALIFORNIA.**

From the California State Journal of Medicine, a most worthy publication indeed, we note editorially, that Oklahoma is wailing that the rights of physicians are endangered at the hands of Legislature and Congress and that a medical lobby with a paid fund should be organized for protection, etc. Well, we do not remember just that exact proposition having been advanced but at any rate we are willing to assume responsibility for and defend the position, with the understanding we do not assume to stand champion for the rights of physicians except in the most altruistic sense. We believe that the work of physicians is greatly underestimated and not understood by the average lawmaker, that his acts are especially liable to misconstruction by the uninformed and more so if there is a convenient lobby of Chiropractors, Christian Scientists and Medical "Leaguers" standing around the legislative halls to help the misinformation be spread. Our conditions are somewhat different than those of California; we have no great endowed and well-known medical schools, we have no millionaire physicians or funds to fall back upon to influence public opinion, we hardly know a single physician in the state who can af-

ford to sentence himself to a term in the legislature in order to place before the body the concentrated wisdom of the medical profession and we can see no reason why we cannot employ and properly so a sensible and intelligent man to go before the legislature with our views and at least counteract the wrong impressions carried before the body by the above mentioned and to the public, dangerous schisms. The editorial also takes issue with various other things happening most everywhere and about everything and takes the position that if laws for the protection of the people are changed, then the people will suffer. Well, we do not look at it that way in Oklahoma. We believe that if we know what is best for the public generally that we should make the legislative bodies acquainted with the knowledge. We certainly believe we should not be criticised for so doing, when if our demands are put into force we suffer loss of money and occupation in the process. We also note in a preceeding editorial that the Governor of California is charged with having somewhat of a hazy idea of putting a medical reciprocity act through the legislature, all of which is opposed by the California Editor, on the grounds that the state will be overrun with Quacks, and that there are already more physicians than the population warrants. We are with him, heart and soul, on the first count, and believe he might find a remedy sooner or later if his legislature can be induced by some one who knows how to pass proper laws for the control of the species, but Shades of Caesar, our Editor has evidently overlooked the fact that the practice of medicine is largely a survival of the fittest, that every tub must stand on its own bottom and that there is no reason why a good physician of Maine or Illinois is not equally good and competent in California. We suspect that the Editor has discovered that California is a likely place to live in that he wants all the hay in the manger for himself. We are reminded too, that the "Native Sons" must have put all the salt in the breeze of California's coast, the gold and sunshine in her skies, a climate that allows one to live outside forever and for doing all this and more he should be allowed to enjoy his production in solitary granduer and not be bothered by the intrusious of hungry doctors from other climes.

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FOR SALE—1 Betz Electric Light Bath Cabinet; 1 Massey Cabinet Battery. Can be seen at O. S. P., McAlester, Oklahoma. Address J. W. Echols, Prison Physician. 11-13

### REPORT OF EXAMINING BOARD.

Report of the examination held by the Oklahoma State Board of Medical Examiners at Muskogee, October 7-9, 1912. The following made a passing grade:

Name	Address	College of Graduation	Date	Grade
W. W. Jackson,	Vinita,	Drake University.....	1912	82
Thomas B. Triplett,	Mooreland,	Chicago Col. M. & S....	1912	83
Daniel W. White,	Muskogee,	Jefferson Med. Col.....	1906	81
Berton W. Hole,	Morris,	Northwestern University.....	1892	81
Thomas W. Dowdy,	Pike,	Med. Dept. T. C. U.....	1912	73
Wm. J. Rutledge,	Muskogee,	Little Rock Col. P. & S....	1911	80
Robt. W. Minor,	Williams,	Vanderbilt Univ.....	1912	81
Geo. B. Beaver,	Tulsa,	Jefferson Med. Col.....	1875	74
M. H. Wakefield,	Luther,	Univ. of W. Tenn.....	1912	71
Chas. E. Cooper,	St. Louis,	Mo., Meharry Med. Col....	1912	82
Dan Moore,	Anrell,	Ark., Univ. of W. Tenn.....	1912	77
A. H. McRuffin,	Muskogee,	Meharry Med. Col.....	1912	79
E. P. Davis,	Welch,	Univ. of Okla.....	1912	79
C. H. Hill,	Cairo,	Ark., Chicago Col. M. & S.....	1912	78
Orah G. Thornton,	Oklahoma City,	Meharry Med. Col....	1912	80
L. L. Cheatham,	Muskogee,	Meharry Med. Col.....	1903	73
I. W. Finley,	Guthrie,	Meharry Med. Col.....	1912	79
Emma Starr Keith,	Muskogee,	Howard Univ.....	1904	77

The following failed to make a passing grade:

- No. 1. University of Arkansas, 1912.
- No. 6. Rush Medical College, 1896.
- No. 7. Little Rock Col. P. & S., 1910.
- No. 10. Memphis Hospital Med. Col., 1912.
- No. 13. Meharry Med. Col., 1909.
- No. 14. Univ. of Arkansas, 1912.
- No. 19. Memphis Hospital Med. Col., 1911.
- No. 23. St. Louis Col. P. & S., 1912.
- No. 24. Univ. of W. Tenn., 1907.
- No. 31. Barnes Medical Col., 1905.

Chas. F. Sneed, Reliance Med. Col. 1909, was licensed by reciprocity with Kentucky.

The following re-registered in accordance with Act of 1908:

- W. T. Atkins, Heavener, Col. of P. & S., 1907.
- Chas. J. Halm, La Harpe, Kans., Am. Med. Col., 1877.
- E. A. Abernathy, Hoilis, Kentucky Med. Col., 1907.



## GENERAL NEWS.

The following general committee will have charge of legislative matters for the coming year for the State Medical Association.

Drs. C. R. Day, Oklahoma City; F. B. Fite, Muskogee; LeRoy Long, McAlester; C. L. Reeder, Tulsa; John W. Duke, Guthrie; John W. Riley, Oklahoma City; Dr. Williams, of the Medical Department of the University; C. M. Maupin, Waurika; D. A. Myers, Lawton; J. D. Ballard, C. B. Bradford and J. Q. Newell, Oklahoma city.

It is probable that a subcommittee of three will be selected from this number to act as a Legislative Committee in conformity with the Constitution and By-Laws.

### MUSKOGEE COUNTY MEDICAL SOCIETY.

Meeting November 25. Dr. Benjamin R. Brown read an interesting paper on "caisson disease," which was accorded the closest attention, both on account of the masterly manner in which it was presented and the rarity of the affection.

Dr. William B. Newton read a paper on "Ocular Injuries."

Meeting of November 11th. Dr. Frederick J. Wilkiemyer presented a clinical case or autopsy finding of "specific aortitis," a case of "primary lateral sclerosis" and a case of "empyema," which closely simulated either gall bladder disease or a high appendix involvement.

Dr. J. A. Dial read a paper on "infective inflammation of the hand."

### ALFALFA COUNTY MEDICAL SOCIETY.

Meeting at Jett, November 6th. Dr. J. H. Medaris read a paper on "auto-intoxication," Dr. Bartlett reported a case of "atypical malaria." Dr. Pence reported a case of "sarcoma of kidney in infant." and Dr. Frazier read a paper on "acute tubercular meningitis." The society was entertained at dinner at the home of Dr. and Mrs. Pence.

### PONTOTOC COUNTY MEDICAL SOCIETY.

To meet in Ada, Aldrich buliding, 2:00 o'clock p. m., on December 2nd.

2:00 p. m. Surgical Clinic, Laporatomy, R. O. Braswell, M. D., Ft. Worth, Tex. Hernia, L. F. Watson, M. D. Oklahoma City. Tonsillectomy.

Medical Clinic—Pellagra, Placenta Praevia, Congenital Lues.

Lecture—J. C. Mahr, M. D., State Commissioner of Health, Oklahoma City.

Lecture—R. O. Braswell, M. D., Ft. Worth, Texas. Post-Mortem. Business meeting.

7:00 p. m. Addresses of Welcome—Hon. E. S. Ratliff, R. M. Rodie. Public Health—J. C. Mahr, M. D., Oklahoma City. Lantern Operations—L. F. Watson, M. D., Oklahoma City. Hernia, Excision of Cancer, Ligation of Superior Thyroid.

9:00 p. m. Banquet given by the Druggists of Ada. Toastmaster, Judge Clinton A. Galbraith. Byron Norrel, Judge Tom D. McKeown, Leslie Maxey.

## NEW BOOKS

### TEXT BOOK ON THE PATHOGENIC BACTERIA AND PROTOZOA

SEVENTH EDITION, THOROUGHLY REVISED.

A Text Book upon the Pathogenic Bacteria and Protozoa. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. Seventh edition, thoroughly revised. Octavo of 878 pages, 293 illustrations, a number of them in colors. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.50 net.

In his preface the author intimates that this is a book for students of medicine and for practitioners, and his efforts are all directed towards making it of value to these two classes. We have no hesitation in recommending it as one of the best works in its field.

In this kaleidoscopic subject, books which were of value a few years ago must now be consigned to the discard, and we are glad to see that the author has not been satisfied with the expedient of revising by re-dating the title page and re-numbering the edition. The book is, in fact, as well as in name, up-to-date, and those subjects in which progress has been the fastest bear the internal evidence of having been re-written, either in the entirety, or for the greater part. There are excellent chapters on Immunity, The Wasserman Reaction, Syphilis, Plague, and Malarial Fever. The presentation of the last subject is perhaps the clearest and most interesting we have ever seen. The admirable short chapter on Vincent's Angina especially attracted our notice, inasmuch as this subject, not without interest to the physicians, is conspicuous by its absence from most books of this class.

The bibliography, very complete, shows a discriminative judgment as to what is of merit, and, embracing the most important contributions to the periodical literature, is brought up to the current year. Where there is a conflict of opinion the author's deductions are at once logical and conservative.

The points that present for adverse criticism are few, and these perhaps, depend principally upon a divergence of view-point. What strikes one as a defect might appeal to another as a positive merit. We regret, however, that space, even though brief, has not been given to such subjects as Anterior Poliomyelitis, Typhus Fever, and Rocky Mountain Spotted Fever, upon which important work has been done of recent years, and by such able investigators. It is true that a specific organism has not yet been demonstrated in any one of these diseases; but such is also true of Hydrophobia and Yellow

Fever, to which separate chapters have been devoted. The recent developments in regard to at least two of the maladies mentioned in the beginning of this paragraph are of intense interest and vital importance to the American physician. As the type among the lower animals of diseases communicated through an intermediate host it would seem too that the Texas fever of cattle might deserve some notice, as well as Chicken Cholera and Swine Plague, which find presentation.

B. H. B.

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## THE PRACTICAL MEDICINE SERIES.

VOLUME VII PEDIATRICS AND ORTHOPEDIC SURGERY.

Section on Pediatrics. Edited by Isaac A. Abt, M. D. Professor of Pediatrics Northwestern University Medical School, Attending Physician Michael Reese Hospital, with the Collaboration of May Mitchell, M. D. Section on Orthopedic Surgery Edited by John Ridlen, A. M., M. D. Professor of Orthopedic Surgery, Rush Medical College. With the Collaboration of Charles A. Parker, M. D. Series 1912, Cloth, illustrated. 240 pages. Price \$1.25, Chicago. The Year Book Publishers, 180 N. Dearborn St.

Familiarity with these reviews of modern medical literature convince the reader of their very great use to the busy practitioner who desires the cream of opinion on recent advances in the field of his special interest. This work, like its fellows of other fields, is a precise review with editorial comment and opinions on all that is going on in the field of medical journalism on the subjects of Pediatrics and Orthopedic Surgery.

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## SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

(AT THE MERCY HOSPITAL, CHICAGO.)

Volume One, Number Five, October, 1912. Published Bi-Monthly, by W. B. Saunders Company, Philadelphia and London, paper 778 pages, illustrated. Price \$8.00 per year.

This issue of Murphy's Clinics contains articles or clinics on Nephrolithiasis, Cholecystitis, Gastroduodenal Ulcer and Gastro Enterostomy, Appendiceal Abscess, Colonic Adhesions Simulating Recurrent Appendicitis, Exophthalmic Goiter and many other interesting subjects in addition to a great mass of bone work and allied bone surgery.

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## THE PHYSICIANS VISITING LIST.

(LINDSAY AND BLAKISTON'S)

For 1913, Sixty-Second Year of Its Publication. Leather, Gold Edges. Price, \$1.25, Philadelphia: P. Blakiston's Son & Co. 1012 Walnut Street.

A TEXT BOOK OF OBSTETRICS—*Including Related Gynecologic Operations.*

THE NEW (7TH) EDITION.

A Text-Book of Obstetrics—Including Related Gynecologic Operations. By Barton Cook Hirst, M. D. Professor of Obstetrics in the University of Pennsylvania. Seventh Revised Edition. Octavo of 1013 pages, with 895 illustrations, 53 of them in color. Philadelphia and London: W. B. Saunders Company, 1912. Cloth \$5.00 net; Half Morocco, \$6.50 net.

Hirst's Obstetrics has come to hold a very high place in the opinion of the medical profession of the country. It is so well established on account of its great common sense and simplicity and previous good introduction to the profession that any description beyond what has formerly appeared of it in various reviews is entirely unnecessary.

To the student it will be found a most excellent instructor and guide and to the general practitioner it will be found as before a great help in time of perplexity and trouble over the hard obstetrical problems.

Some changes to meet the changing views of authorities on obstetrical subjects have been introduced. The Author believing that Diseases of the Breasts are a part of obstetrical conditions generally has greatly increased the article pertaining to that subject and is also inclined to consider gynecological subjects generally in his book.

The book may well be said to be a consideration of Diseases of Women, Gynecology and Obstetrics all in one as such will be found a correct guide and advisor.

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SURGERY AND DISEASES OF THE MOUTH AND JAWS

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A practical Treatise on the Surgery and Diseases of the Mouth and Allied Structures by Vilray Papin Blair, A. M., M. D. Professor of Oral Surgery in the Washington University Dental School, and Associate in Surgery in the Washington University Medical School, Cloth, 638 pages with 334 illustrations, \$5.00 net. C. V. Mosby Company, St. Louis, Mo.

This volume devotes a great deal of attention to reparative surgery of congenital defects, to fractures and dislocations of the jaws, deformities and malrelations, tumors, cysts and cancer of the mouth and jaws, excisions and to the general considerations of anesthetics, preparation of the patient for operation, infections of the sinuses and general inflammations and infections.

The work is not only one of especial interest to the oral surgeon but will be found of great interest to the dental surgeon and general surgeon as well.



## GROWTH IN THE USE OF BACTERINS.

Treatment of infectious diseases with preparations derived from corresponding micro-organisms is unquestionably growing in favor. Not only do the bacterial vaccines (or bacterins) seem destined to a permanent place in therapeutics, but their field of applicability is constantly broadening. Proof of this is seen in the growing list of these products announced by Parke, Davis & Co., no less than fifteen of the bacterins now being offered to the profession.

There are a number of reasons for the favor which is being accorded to the bacterial vaccines. In the first place these products are in consonance with the scientific trend of present-day medication. They are being used with a gratifying measure of success. The method in which they are marketed (sterile solutions in hermetically sealed bulbs and in graduated syringes ready for injection) appeals to the modern medical man, assuring, as it does, both safety and convenience. The moderate prices at which they may now be purchased will tend to give them still greater vogue. And these prices are worthy of note, since they represent a great reduction from those formerly prevailing, amounting, if we are not mistaken, to as much as 60 per cent. in many cases. They are announced elsewhere in this journal over the signature of Parke, Davis & Co., and will repay a careful scrutiny.

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## RHEUMATIC CARDITIS.

Quoting Osler, W. Lintz, Brooklyn (Journal A. M. A., March 2), says that rheumatic carditis is a disease that in the young is the most serious single infection, responsible for almost as many deaths as all the exanthematous affections of childhood together. It is responsible also for most of the heart disease of adults. By rheumatic carditis is understood the successful invasion of the heart and the various pathologic changes brought about in that organ by the casual agent of rheumatism, which he believes is the diplococcus of Triboulet and Poynton and Paine, which he has been able to isolate in some of his patients. The pathology is absolutely characteristic; the valvular lesions are caused by the dissemination of the micro-organisms through the blood in the coronary arteries and not by their lodging on the valves in the intracardiac blood-stream. The cardiac apex murmur, even early in the disease, is never functional, but is due to a loss of tonicity in the myocardial mitral sphincter and consequent dilatation of the mitral orifice. The general cardiac dilatation, the most serious derangement in the disease, is due to the selective action of this particular toxin on the cardiac muscle. Derangement of the pulse and temperature ratio is of diagnostic importance, and he has observed a rise of temperature to be accompanied by a feeling of well-being, especially in the more subacute and chronic cases. The simple and malignant endocardites represent only different degrees of one and the same process. While the salicylates are of value in the treatment of the general rheumatic infection, Lintz has little faith in their effectiveness in serious involvement of the heart. His experience with vaccines has not been sufficient to warrant any definite conclusions. Rest is the rational therapy. In other words, we are helpless against this most serious condition.

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# THE JOURNAL

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## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, JANUARY, 1913

No. 8

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

### ACUTE LOBAR PNEUMONIA.

DR. E. FOREST HAYDEN, Tulsa, Okla.

Most all phases of medical thought have been so thoroughly discussed and completely thrashed out at the successive meetings of our medical associations at their annuals and semi-annuals, and also in the periodical press, that the general practitioner, who has neither time nor opportunity to pursue new lines of investigation, finds it a matter of no little difficulty to select a theme which will not already be so familiar to our fellow practitioners to the extent that it at once becomes uninteresting because of its oft time repetition. In view of the above mentioned facts we are, as a rule, encouraged to launch into some unproven territory when looking for subject matter for a paper, or, on the other hand, we are prone to chase some chimerical product of latter day science in the hope of remaining precisely modern and up to date in our attitude to all things which partake of a medical nature. In this instance, however, I am taking the liberty of bringing to your attention the old and time worn subject—acute lobar pneumonia—consequently I feel goaded by the extreme triteness of my subject to the effort of bringing to the surface some additional points of interest aside from the ordinary trend and method of treating the subject, though it should consist of no more than a



sentence or a word. When we pause to consider the term "Pneumonia," a kind of a kinetoscopic picture looms up within our vision, and we are made to observe first, a perfectly healthy human lung, normal in all of its appointments and perfect in all of its anatomical and physiological relationships; one that accepts, in its way, a prescribed quantity of air from space, and one that by means of its many wonderful and minute laboratories, skillfully arranged in the form of air vesicles, separates from the air it is made to contain that life giving principle—Oxygen—and transmits it through its thin and delicately made membranous walls, where it is in turn given over to the liquid stream of life upon whose bosom it is borne on its destination of indeterminate voyage of succor. In this way we may make a hasty review of the structure of the lungs so far as it concerns us in reference to the topic we are about to consider. We think of the bronchi first. We remember that the right bronchus is shorter than its fellow and that it occupies a more horizontal position, and that it branches off opposite the fifth dorsal vertebra; that the left bronchus is the larger of the two and lies in an oblique position which begins the land marks for the field of our investigation: That it passes beneath the arch of the aorta and crosses in front of the oesophagus, thoracic duct and descending aorta. Next we pass to the bronchial sub-division, and notice that as they pass downward and backward they constantly and uniformly diminish in calibre until they have ended in their respective lobes. The bronchi, as they dip further into the substance of the lungs, divide and sub-divide dichotomously throughout the entire organ, ultimately forming bronchioles, after which its walls begin to present irregular dilations—called alveoli or air cells; first on one side only, but as we proceed further downward we find them on every side, so that the tube loses its cylindrical character altogether. As we advance from the larger tubes onward and to the final bifurcations, we begin to lose sight of every vestige of cartilaginous material, even though they may be found in tubes of only  $\frac{1}{4}$  line in diameter. Beyond this point the tubes are wholly membranous, with only their fibrous coats and longitudinal elastic fibres which are continued into the smallest ramifications of the bronchi. The bronchi are filled throughout with columnar ciliated epithelium, and finally the lobular bronchial tubes lose their muscular coat altogether and the longitudinal elastic fibres break up so as to form an interlacement around the mouths of the air cells, and it is here that the epithelium becomes non ciliated and flattened.

Having made a hasty review of the bronchial tree from its beginning to the points where the bronchioles metamorphose into numerous dilated extremities, which are denominated air vesicles, and having mentioned something as to their formation, especially as to their minute formation, consisting of mucus and basement mem-

branes in which are held the smallest sub-divisions of a beautifully arranged capillary net-work, by means of which air and blood are enabled to carry on a kind of oxygen commercialism, causing the human economy to be supplied with that indispensable gas without which we must of necessity perish, we are brought to the destination where we are to discuss the pathological condition known as Croupous or Lobar Pneumonia. Perhaps I should have come more directly to the point, or to a division of the subject, by beginning my paper with the treatment of Acute Lobar Pneumonia, since we, as a whole, are most interested in that division of the subject. However, I have thought best to take it up as a whole and in a more routine way, consequently, we will first make mention of the acknowledged classification of the four or five stages into which the disease naturally divides itself, or has been divided by those who have gone before us, for in that way we can best keep track of the successive pathological changes as they occur, and more intelligently and beneficially observe the numerous lines of treatment that come in their wake. No doubt that pneumonia was one among the first diseases to be catalogued, having been denominated by someone as the "Captain of Death," and always has stood foremost among death agencies, yet little or nothing was definitely known about its pathological foundation as a croupous inflammation of the lungs before the beginning of the nineteenth century. Previous to this time, and from the days of Hippocrates, it received various designations and was much confused with pleurisy, and not until the time of Laennec was the disease placed upon a clear anatomic and clinical basis. He differentiated three well defined and easily noted stages of the disease, known as the stages of Engorgement, Hepatization and Purulent Infiltration. For the sake of greater clearness, based upon our more recent knowledge of the disease, we have now divided the stage of Hepatization into that of Red and Gray Hepatization. A metamorphosed blood mass is the harbinger of pneumonic fever and whether or not the subsequent behavior justifies us in proclaiming it as Lobar, Lobular, Larval, Wandering or Desquamative, or any one of the other thirty or more kinds of pneumonia, named according to their individualities, we are convinced that the filling of the tissues first with extravasated blood corpuscles is the beginning of the first expression of pneumonia; then follows the secretion of a very tough, tenacious and brownish fluid. Next in order the pulmonary cells become filled with a granular substance which was, at first, thought to be due to the transformation of the vesicles of the lung into solid granules in consequence of the thickening of the walls of the vesicles, but which is now more certainly known as an inflammatory deposit in the cavities of the pulmonary cells. Then the seat of the pneumonia process is located within the walls of the air cells, in the mucus membrane of the lungs. The product of the process is deposited in

the cavities of the pulmonary cells. Then pneumonia is, therefore, a croupous process of the mucus membrane of the lungs, similar to a parenchymatous croup. Croupous pneumonia in man is regarded as a typical croupous inflammation which is entirely analogous to croupous inflammations occurring in all mucus membranes. The epithelium of the air vesicles undergoes fibrinous changes, after which coagulation and infiltration immediately take place. When the lung has become a properly prepared field of inflamed tissue,—and it has invariably proved to be a very fertile one,—and when it is seeded with infection, in a large majority of instances with the *Micrococcus Lanceolatus* of Fraenkel, or in association with the *diplococcus* of Weichselbaum, or the *bacillus pneumonia* of Friedlander, and we have had established a toxemia of varying intensity; when we realize that in the year 1890 alone there died 76,476, it is more than evident that in this disease we have a problem of no little import to reckon with. Another fact of importance is that the greater number of victims of this disease are claimed during the years of paramount usefulness—the time when men are worth infinitely more to their families and to their states—differing from broncho pneumonia which selects its victims from the extremes of age, either the very young or the very old. It attacks them and slays them chiefly between the years of sixteen and sixty. Other items of importance which at once become apparent to us are: It is partial to males, that it is most prevalent in cities, that it is relentless in its onslaught upon those who have been unduly identified with alcohol, that it preys upon the debilitated, upon laborers and the exposed, and furthermore, that one attack predisposes to another, instead of giving immunity as is the case with many other diseases decidedly less fatal in their issue.

From the time that the pneumonia germ becomes implanted in the lung tissue until the disease symptoms begin to manifest themselves, is a question much in doubt. However, when the process has once begun, and we are called to the patient's bedside, we are accustomed to find the following phenomenae: A history of having had a chill, frequently in the night time,—something that invariably denotes alarm,—a sharp elevation in temperature, often reaching as high as 104 or 105 degrees, there is a flushed face, an anxious expression, a clear and glancing eye, hurried and labored respiration, increased heart action and an aching head and general malaise, a high colored urine and loss of appetite and a co-incidental constipation. We find the patient lying on his back or the affected side of which he complains as giving him great pain. Upon coughing, we discover a blood stained and tenacious expectoration. Having noted the above mentioned train of symptoms, we are wont to proclaim it a case of Lobar Pneumonia. Once being confirmed in this opinion, we are ready for the next initiative, and that is, we must inaugurate



a sane and humane line of treatment. A correct diagnosis is comparatively an easy task, but to adopt a rational line of treatment and one that partakes much of success, is yet a much mooted question, and its correctness depends wholly upon the ability of the attending physician to interpret the full meaning of symptoms as they arise, and to institute the quality of treatment required according to their merits. We must accept pneumonia as a self limited disease, which cannot be either abridged nor aborted by any means within the radius of our knowledge. It has a faculty of quitting when it gets good and ready, and according to experience we know that it is likely to come to an abrupt end, anywhere from the third to the ninth day, and it usually selects one of the odd days for this ordeal. We have also learned that too much treatment is likewise too much of a nuisance, and rallies more of harm than good. The general management of a case is then, a matter of great magnitude. Hygiene here plays a part of first importance. A well sun-flushed room with an abundance of fresh air is imperative. Baruch says: "Plenty of oxygen in the way of fresh air, early in the disease, will do away with the necessity of administering oxygen later." Patient should be provided with ample clothing, and after having adjusted a comfortable fitting cotton fleeced undershirt, which is easily prepared by opening an ordinary undergarment its entire length of the front and quilting its inner side with absorbent cotton throughout, making it the thickness of one-half inch or more, should be put to bed and kept strictly in a recumbent position or posture, and the bed pan should be used as needed. If possible, the patient should be furnished with two rooms for his sick quarters, so that there will be one room for the patient and one for the nurse or attendant. This enables patient to be kept isolated, thus insuring him a much needed mental and physical rest, and secures others against infection. It is best to provide for necessary ventilation through the nurses room and through windows pulled down from the tops, thereby avoiding any direct draft upon the patient. This arrangement gives the additional advantage of warming the fresh air to the desired point of about 65 or 67 degrees before it comes in contact with the patient. The air to be breathed by the patient should be kept humid, which can be carried out by placing an ordinary tea-kettle on fire in room adjacent to the one occupied by the patient. The steam that may be procured from this sort of an arrangement, it will be found will be sufficient to render breathing more satisfactory. Food should be light, mostly liquid and nourishing in character, either milk or of a predigested nature, for by conserving the patient's strength we have accomplished much toward bringing him to ultimate recovery. Food should be taken while patient is reclining; overfeeding should be strenuously avoided, for a distended stomach will seriously interfere with an over taxed heart. If patient is



plethoric, with a high blood pressure; if the pain is severe and the fever is high, I believe that it is expedient to bleed him, regardless of the disparaging remarks that have heretofore been offered in contradiction to this process, which, however, we must admit has oftentimes been abused. If we have deemed it unnecessary to resort to venesection at the outset of the disease, and contra-indicated, we may yet, later on, find it the very best thing at our command, in case the right heart becomes over-filled with blood, plus a gradual increase in tension, accompanied by cyanosis, painful shortness of the breath and small and feeble pulse. While our weakness in dealing with pneumonia is made chiefly manifest by our inability to combat successfully its attending toxæmia, we are prone to pin our faith to a limited number of drugs that seem to bring about definite and desired results. This line of drugs referred to all have specific action upon the heart and vaso-motor system. We are not certain which exerts the most hazardous influence upon the heart—the progressive toxæmia upon the nerve centers controlling the heart action, or the effects of the fever per se. However, we are inclined to rely, with faith, chiefly upon the several actions of digitalis, caffeine citrate, strychnine, aromat. spts. of ammonia, alcohol and saline solutions to bring us out of the dilemma of pneumonic complications. In the treatment of no two patients can any routine be relied upon, neither can any drug be selected without a clear knowledge of all of its medicinal possibilities, for while one of its physiological effects may be all that is required, another one of its actions may mean death to the patient. Dr. Hays says: "In this disease the doctor should be a watchman all the time, and only a therapist when necessity arises." It is positively unnecessary to begin the treatment of every patient with a stimulant, for many of them at no time during the course of the disease show any indication for their employment whatever. Should the emergency arise, however, we should select the one, with marked care, that will most likely meet our demands. In those cases which do, from the very outset, present indications for stimulation, it is well to begin with conservative doses of good whiskey (not the Oklahoma ostensible drug-store or bootleg brands) for in doing so we may conserve a three-fold benefit, in using quantities of from one ounce to one and a half ounces, for it can be depended upon as a food, being consumed by the human economy and thus supplying fuel to be appropriated by the fever which, in a long measure, protects the tissues which would otherwise be burned up by the excessively high temperature. Alcohol relieves peripheral blood stasis, and is self indicative as to its extent of usefulness in this particular. When it has been pushed to the limit of its beneficial purposes, it will be made manifest by dryness of the skin and mouth. The odor will also appear on the breath. No doubt but that much of the circulatory disturbance caused by pneumonia results because of the paralyzing ef-

fects of the pneumo-coccus upon the vasomotor centers, therefore we should exercise caution in not over-stimulating the heart, which must aggravate the condition. There are possibly three conditions which seem to indicate the use of digitalis, which we may enumerate as follows: First, loss of nerve power. Second, faulty nutrition, and third, mechanical dilatation of the heart muscle. Digitalis stimulates the inhibitory apparatus of the heart, slowing the heart's action, and gives new tone to the pulse. It prolongs the diastole and imparts a normal vigor to the whole cycle of the circulation; at the same time we are not to lose sight of the phenomena peculiar to the administration of digitalis, viz. that it acts slowly; that it is accumulative in its action, and that it cannot be depended upon in emergencies when an immediate heart stimulation must be had. Under such circumstances, strychnine is decidedly the better drug to use, unless it be sparteine sulphate in doses of one-quarter to one-half grain. A better plan still, is to combine the two drugs, for by doing this we get a combined action of the two drugs. The strychnine acts at once, and on account of its quickness of action, we are able to lash a failing heart from an impending crisis, and by the time the effects of the strychnine have begun to fade away, the sparteine has taken up the thread of stimulation and holds the circulation strong and steady for a period of four or six hours. Nothing gives the coveted equilibrium to the circulating system in just such a crisis as sparteine does.

The number of medicinal attributes possessed by strychnine are sufficient to commend its recognition in many fields of therapeutic endeavor; it acts well in a purgative combination such as we are wont to use at the beginning of an attack of pneumonia. It stimulates the muscular fibres of the intestines and produces a degree of peristalsis such as will insure a thorough emptying of the bowels. It is an admirable respiratory stimulant, and so acts by a direct stimulation of the pneumogastric center in the brain.

Perhaps we cherish our animated variances in regard to the employment of one class of drugs in pneumonia treatment more particular than any other, and that is the one known as antipyretics.

The majority of practitioners emphatically repudiate all claims of benefit arising from their employment, while others laud them very highly. We are all readily cognizant of the fact that the pneumococci germs thrive decidedly better in blood of a low temperature than they do when the temperature is running in the neighborhood of 104 or more degrees. We are, also, aware that on the other hand that Leucocytosis is encouraged by a high temperature. We further know that leucocytes are nature's defending agencies. These two conditions being true we must realize that a moderately high temperature offers much to enhance the number of chances for recovery to the patient, which is exactly the opposite under an existing low temperature.

When the temperature runs so high as to seriously interfere with the patients nerve control I think it is well to give guarded doses of phenacetine every 3 or 4 hours until the fever is held within a range of 102 degrees and not below 101 degrees. This is probably an advantageous average.

Should toxæmia be in evidence, the administration of normal salt solution is worthy of recommendation; it materially dilutes the poison in the blood and dispenses with the danger of a heart clot.

Sleep is of vast importance at all events and if patient is inclined to lie awake at nights I have found that the administration of 8 or 10 grains of veronal corrects this difficulty.

As to the employment of expectorant mixtures, no doubt, they are often more of a therapeutic outrage than otherwise.

When there is an existing exacerbating localized pleuritic pain a small fly blister is calculated to bring marked relief. Strips of adhesive plaster are, also, commendable.

The use of the proverbial poultice is filthy, void of good and should be discouraged.

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### HEMORRHOIDS.

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More people are afflicted with hemorrhoids than with hernia or tuberculosis, probably one person out of every ten has piles. This is not surprising when one considers the large number of predisposing and active causes that favor the development of this disease. I wish to make a plea for the more frequent use of the simple operations for hemorrhoids, I believe it is the thoughts of a severe operation, intense post operative pain and the long detention from business that causes the majority of patients to refuse surgical treatment for this annoying and troublesome affliction. The term "hemorrhoid operation" too often means general anesthesia and a Whitehead operation, or one of the numerous modifications of this very radical and rarely required procedure. The Whitehead operation is indicated only where there are no distinct pile tumors but a varicose condition of the entire pile bearing area with ulceration of the mucosa and frequent protusion with bleeding. Gaut states that piles can be permanently cured by less difficult operations than the Whitehead.

With the improved technic of cocain anesthesia, shown in the accompanying illustrations, which permits a thorough and painless dilatation of the sphincter, it is no longer necessary to subject these patients to the discomfort and danger of general anesthesia. The immediate and permanent relief that this method offers should appeal alike to patient and physician because it can be done in the office or home and there is only one or two days detention from business and after pain is absent.

Cocain one-tenth to one-fifth per cent in normal salt solution is the local anesthetic of choice. The ideal anesthesia is the one that



gives complete analgesia with the smallest amount of infiltration. By a thorough infiltration is not meant a massive infiltration of all the tissues regardless of the nerve supply. Massive infiltration obscures the field of operation, distorts or obliterates the hemorrhoids and is the usual cause of failure when physicians neglect to remove all the pile tumors when using local anesthesia.

**CASE REPORT.** This is a case of combined external and internal piles. The patient is lying on his left side in the Sym's position. The operation of choice in this case is the ligature.



FIGURE 1.



FIGURE 2.

**FIGURE 1.** This shows only the connective tissue hemorrhoid, Tuttle's skin tab, the internal hemorrhoids are not visible, they are above the sphincteric ring.

**FIGURE 2.** While the patient strains a small pledget of cotton saturated with a one-fifth per cent cocain solution is introduced into the anus, as he relaxes the pledget is drawn up within the sphincteric ring. The local applications are repeated with pledgets of increasing size, until the mucosa is completely anesthetized and the sphincter relaxed sufficiently to admit the index finger without pain.

**FIGURE 3.** The needle is introduced through the anesthetized mucosa and the muco-cutaneous margin carefully infiltrated with a



one-tenth per cent cocain solution by means of a series of small wheals. The point of the needle must be very superficial, the tip should always be in sight between the layers of the epidermis. After each injection the needle is reinserted well within the anesthetized area.

FIGURE 4. This shows the skin infiltration completed. This is all that is required for external hemorrhoids, when it is not necessary to dilate the sphincter. Note the small amount of infiltration required if it is placed as Wyeth emphasizes, "intraepidermal."



FIGURE 3



FIGURE 4

FIGURE 5. The index finger of the left hand is introduced into the anus and the sphincter muscle located. With this finger as a guide the muscle is anesthetized. Six to eight punctures are made at equidistant points around the circumference of the anus, each time about fifteen minims of the one-tenth per cent cocain solution is injected directly into the muscle. This step is difficult and painful unless the muscle has been partially relaxed with the cotton pledgets.

FIGURE 6. The sphincter is now painlessly and completely relaxed by digital dilatation. Only a moderate degree of dilatation is necessary. The extreme divulsion practised by some operators is

not only unnecessary but the traumatism causes the dull aching pain that so often follows these operations.

FIGURE 7. This shows the amount of dilatation that is possible under local anesthesia. The sphincter is well dilated so that no pile tumors will be overlooked as often happens when the sphincter is rigid and resisting, even with general anesthesia.

FIGURE 8. The internal hemorrhoids are easily everted after the sphincter is relaxed. There is no chance of overlooking the smallest pile tumor.



FIGURE 5



FIGURE 6

FIGURE 9. The lowest pile is grasped with a hemostat and pulled down while a groove is cut around its lower two-thirds through the skin and mucosa. This prevents post operative pain.

FIGURE 10. The ligature is transfixd through the center of the pile to prevent slipping.

FIGURE 11. The ligature is firmly tied in the mnco-entaneous groove.

FIGURE 12. This shows the ligature operation completed. If it is desired, the quinine nrea nerve block can be used to prevent all post operative pain. A one per cent solution is injected into the pile tumor and around the base of the ligature.

The success of the office treatment of hemorrhoids is demonstrated by the flourishing practise of the "advertising specialist." Many patients are unwilling or unable to submit to hospital treatment for piles, nor will they consult the physician who does not treat these cases at his office, except as a last resort, when palliative measures have failed and their health has become seriously impaired.

There are several good methods that are adapted to cocaine anesthesia and the choice depends on the individual case and the preference of the physician. Since the introduction of methods whereby



FIGURE 7



FIGURE 8

the sphincter can be painlessly dilated the indications for general anesthesia in rectal work have become very limited and are governed largely by the skill and patience of the physician in the use of cocaine, even the Whitehead operation can be performed under local anesthesia.

The office treatment of piles usually consists of the ligature with or without transfixion, clamp and suture or excision of the hemorrhoid with suturing of the wound.

The majority of hemorrhoids seen by the general practitioner are primary hemorrhoids and either internal or external in character.



The internal hemorrhoids are usually divided into the capillary and varicose varieties. The varicose pile protrudes when the patient strains and are the source of considerable inconvenience.

The capillary form bleed at frequent intervals and give the patient annoyance from irritation and tenesmus but do not protrude.

Internal hemorrhoids are very frequently treated with palliatives because of the general belief that their cure requires a general anesthetic, confinement in a hospital and detention from business.

The external hemorrhoids ordinarily encountered are of the thrombotic and connective tissue varieties.



FIGURE 9



FIGURE 10

Thrombotic hemorrhoids are due to the clotting of blood in the loose cellular tissue around the terminal veins. The injection of a few drops of one-tenth per cent cocain solution into the skin surrounding the thrombotic hemorrhoid will permit a painless incision, which should be made in the line of the radial fold, the clots should be gently removed with a small curette or forceps. Squeezing them out by pressure will make the after pain more severe and sometimes cause swelling of the parts. Usually a suture is not required as the folds of the anus tend to keep the edges of the wound in approximation and healing is complete within a week. Glutol, a one



per cent formalin in powdered gelatin, is a very convenient dressing for these cases, it is an efficient hemostatic as well as an antiseptic.

Connective tissue hemorrhoids or "skin tabs" (Tuttle) are usually more annoying than dangerous, although they are liable to become inflamed from prolonged irritation and cause marked discomfort and pain.

Palliative treatment is worthless in these cases, while the injection methods will increase the size of the tumor. The only satisfactory treatment is to cocaineize the connective tissue pile and clip it off



FIGURE 11



FIGURE 12

flush with the skin. The healing is equally rapid whether the wound is sutured or left open.

Secondary hemorrhoids due to hypertrophy of the prostate urethral strictures, cirrhosis of the liver, vesical calculus, malignant disease of the bladder and rectum are best treated with palliative measures unless the cause can be removed. Secondary hemorrhoids and those involving the entire pile bearing area should be operated on at a hospital or in the patient's home, these cases are always liable to secondary hemorrhage.

To secure the best results in the simplest operation it is necessary

to have the lower bowel empty. Neglect of the proper preliminary treatment will make the office treatment of hemorrhoids unsatisfactory. One or two days before operation the patient should receive a large dose of castor oil, Laxol, or a saline cathartic. An enema of hydrogen peroxide, ten per cent, eight to ten hours before operation to thoroughly empty the bowel. If the desired result is not obtained the enema should be repeated within two hours. No enemas should be given within six hours of the time set for operation, a disregard of this precaution will sometimes cause annoyance from fecal masses contaminating the field at the time of operation due to an exciting of peristalsis. Particles of fecal matter in the rectum at time of operating must be thoroughly removed with pledgets of cotton or gauze or an irrigation.

Patients operated on with local anesthesia should always receive morphine sulphate (grain one-eighth to one-quarter) hypodermically one hour before operation.

When operated on at a hospital or in the home the hyoscine-morphine preliminary treatment, as suggested by Tuttle, is very useful to prevent much of the post-operative pain that follows the more radical operations. Give hyoscine hydrobromate, one hundredth grain, three hours before operation. Repeat the same dose of hyoscine combined with morphine sulphate, one-sixth to one-quarter grain, one hour before the operation.

The ligature operation is preferred by many because of its simplicity, ease and rapidity of application and adaptability to the majority of cases. It can be performed in the lithotomy or Syms position, the latter is more comfortable for the patient.

After the usual preparation and cocainization the sphincter is dilated and the lowest pile grasped with a hemorrhoid forcep or an ordinary vulsellum. Allingham ligates the smallest and lowest hemorrhoid first so the blood will not obscure the field of operation and there will be no danger of the pile being overlooked. A groove is cut around the lower two-thirds of the pile and the submucous and muscular tissues separated up to its base. The pile is then ligated with chromic catgut, linen or silk and the hemorrhoid cut off, leaving sufficient pedicle to prevent the ligature slipping. When the pile is large and the hold of the ligature uncertain it is wise to transfix the ligature through the base of the hemorrhoid before tying. Any actively spurting vessel should be tied. Venous bleeding while sometimes free, will stop as soon as the operation is completed.

Healing is more rapid and strictures and contraction prevented if the longitudinal incision is sutured transversely. An extensive removal of subcutaneous tissue when operating for hemorrhoids is a frequent cause of contraction, therefore, the base of the ligature should be as narrow as possible and at the same time safely secure the blood supply.

As much mucous membrane as possible should be left between the ligatures, it promotes healing, the patient is more comfortable, the bowels move easier and contraction and stricture prevented.

The clamp and suture method: The pile is grasped in the long axis of the bowel with a long narrow bladed clamp. One with slight serrations to prevent slipping is to be preferred. Be careful to always close the blades just within the muco-cutaneous margin. The inclusion of skin or muscle within the suture is the most frequent cause of pain following these operations. With scissors the pile is cut off leaving about one-tenth inch of pedicle, just enough to insure the hold of the clamp. A suture of chromic catgut, linen or silk is threaded into a fine round curved needle. The suture is begun and tied just above the upper end of the clamp to secure the hemorrhoidal artery, then continued as a continuous suture around the clamp until the lowest end of the pile is reached when the clamp is removed and the suture tightened and tied.

The Earle operation has the same indications as the Whitehead with the advantage of being quicker and less bloody. It is similar to the method just described except that the suture line is transverse. The pile is grasped with a hemorrhoid forcep or vulsellum and pulled down while the Earle clamp is applied. The pile is cut off and a continuous suture or chromic catgut passed through the pedicle under the clamp. The suturing completed, remove clamp, tighten and tie suture. The procedure is repeated on the opposite side and the operation is finished.

The clamp and cautery method is cumbersome and not adapted to local anesthesia, besides the heat tends to radiate beyond the anesthetized area and cause pain. Jacobson says the cautery operation is more painful and uncertain than any other method of radical treatment.

In fistulae the cautery is the method of choice, ninety per cent of which are tuberculous, the cautery effectually prevents metastasis. Tuttle states that before he adopted the cautery treatment for all fistulae, he occasionally found a case that developed tuberculosis of the lungs one or two years after the fistula operation. Since using the cautery he has never had this complication. When the cautery is to be employed the tissues must be cocaineized at least two inches beyond the site of operation to prevent the discomfort of heat radiation to unanesthetized tissues.

The bowels carefully prepared before operation, should be kept at rest for four or five days when a dose of castor oil, Laxol or a saline cathartic is administered. When the bowels feel inclined to move give an enema of olive oil to make the action painless.

When more than one pile has been removed it is advisable to insert a small rubber tube covered with gauze and well lubricated with



vaseline. The tube is left in one or two days and prevents gas accumulation in the lower bowel. This dressing is easily held in position with a "T" bandage.

The after treatment consists in administering an intestinal antiseptic to prevent gas formation, bathing the parts with warm water to prevent spasmodic contraction of the sphincter and the daily application of carbolyzed vaseline or vaseline and ichthyol through a pile tube. The use of suppositories is seldom required besides they are inconvenient and difficult to insert after a hemorrhoid operation.

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### EPIDEMIC CEREBROSPINAL MENINGITIS.

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In presenting to you the subject matter of this paper, we realize that in all probability we shall not be able to offer you anything new, as every particle of information available on this subject has recently been so generously distributed as to hardly escape your notice. However, it might be that a review of the more practical features of the recent epidemic that has involved a large area of our State and the State of Texas might in a measure be beneficial. Since the settlement of our State, there has never been an epidemic within its borders that has caused the general alarm both upon the part of the physician and the laity as has the recent epidemic of cerebrospinal meningitis. And yet the number of attacks and death rate has been comparatively low,, considering the area of involvement.

In our brief discussion we shall deal with the subject matter in general way only, trusting that your personal interest leads you to make a careful detail study of this important subject.

Before proceeding we will review a brief history of this disease, as to habits and attacks. For this review we will be guided by W. H. Frost's report of the U. S. Public Health and Marine Hospital service. In substance, it shows that cerebrospinal meningitis is epidemic in its attacks, it also shows that coincident epidemics may occur in widely separate localities at the same time. That periods of intermission will prevail in cycles. With only occasionally a sporadic case occurring as at no time but somewhere there are small attacks, at times hardly noticeable.

By this report it will be seen that the portion of the country now affected, has escaped previous outbreaks of serious consequence, if so no record is made of the same.

"This clearly recognized epidemic of cerebrospinal meningitis occurred in Switzerland in the spring of 1805, following this for a period of ten years, a number of attacks occurred in widely separate localities in France and Germany. Coincident with the above or one year later an outbreak occurred at Mansfield, Mass.,



spreading over the eastern portion of the United States and extending into Canada, lasting for a period of ten or twelve years.

"After a period of intermission of about fifteen years or the year 1836, there occurred in Europe a series of outbreaks, continuing again for another fifteen years. Closely followed by a similar outbreak in the United States, lasting for the same period as the last mentioned, subsiding about the year of 1850.

"The next period of prevalence was in the year of 1860, when this disease visited the Scandinavian Peninsula, causing the loss of about four thousand lives; this period prevailed only about six to eight years. At the same time there occurred a similar attack in Europe and the United States. This same report shows that during the years from 1865 to 1885, a period of twenty years, that attacks were very rare, except in small portions of America. Excluding the Fiji Islands, which were attacked by an epidemic during 1885, and 1886, there was another intermission of about fifteen years. In the year of 1900 there occurred an attack in Europe and the United States. Continuing close upon the last comes another cycle of epidemics dating from 1904 in the United States, and 1905 in Germany (especially Prussia) and 1908 in France. Apparently this last wave has not yet passed. During the winter and spring of 1911 outbreaks occurred in several of the Southern States of the United States and there are further outbreaks in the South and Southwest at present." The latter refers to the Texas and Oklahoma epidemic.

A careful study of the above will bear out the assertion that in all probability, present epidemic of cerebrospinal meningitis, which has been spreading will continue for a year or two at least, in some locality, is in keeping with the previous habits of cerebrospinal meningitis. And that the seemingly subsiding spreading of this disease is due to the season of non-prevalence, rather than the usual period of intermission. Though the next outbreak may be in a widely separate community from the present. Though the attack may not rage with the accustomed severity, yet at some place or number of places cases will occur. And we, as physicians, sooner or later in our routine work will have to combat this disease in some of its forms, is almost certain.

Cerebrospinal Meningitis, like the more common infectious diseases, is due to a specific germ, the diplococcus intracellularis meningitis or commonly called the meningococcus. The growth of which is confined largely to man and monkey. To a limited extent lower animals have been inoculated with this disease or one that bears many clinical symptoms, which is in the opinion of the writer, the same.

The meningococcus grows best in a media containing animal fluids preferably human, such as pleuritic, blood serum, or defibrin-

ated blood. The temperature preferred is 73-C or 98.6, the life of this germ is but five minutes at 50-C and it will live scarcely at all at a temperature above 65-C. That outside of the human body it has but a short life.

The area over which meningitis may spread is not limited, it may appear at widely different places at the same time. The course, or route which it may follow cannot be traced with any certainty. It may appear in any climate, and under any or all circumstances. Any direct relation cannot be established between similar attacks in different communities. However, there are instances where it is thought along the route traveled by soldiers, whose camp was infected with cerebrospinal meningitis, that cases might be traced. But to trace the source of this disease as can be the source of typhoid fever, can not be done.

The season of greatest prevalence is during the winter months and early spring. Netter and Debre statistics show that cerebrospinal meningitis during a period of three years, eighty per cent of the cases occurred during the winter and early spring months. The number of cases occurring in Savannah, Ga., in the winter of 1910, and early spring of 1911, and in Dallas, Texas, in 1911, and 1912 are practically the same as above, eighty percent in each case, the disease subsiding as the warmer weather set in.

The manner in which meningitis may be transmitted, and to what extent it is contagious, are a question of considerable comment. Just to what extent personal contact has to do with the spread of this disease is not yet fully determined, but that it is a factor is practically certain.

The following is taken from the U. S. Marine Hospital Service report of 1911:

Out of forty-nine cases investigated, it was found that four cases could be traced to direct contact; indirect contact, four cases, that is living with people who came into direct contact. Six possible contracted, through public schools. No contact traceable, thirty-five.

It is evident that personal contact, from the above, has something to do with the source of infection, although very slightly, yet it is sufficient evidence, to cause the usual precaution of not coming into contact with a disease that might prove such an unwelcome guest. It is generally conceded to contract this germ one must come in personal contact, such as using the common drinking cup, the use of the same towel, or eating and sleeping together. As we have previously stated, the meningococcus lives but a few minutes outside of the human body, making direct contact the most likely means of transmission.

During a general epidemic, eighty per cent of the people are common carriers of the meningococcus, and yet, according to the pop-

ulation, comparatively few are attacked. In an ordinary epidemic, where the population is not overly crowded, the usual number of cases are one to two to a thousand population, may run much lower, and instances are also recorded where the per cent attacked was considerably higher. Out of five hundred cases reported, in the state of Oklahoma, April the tenth, extending over a number of counties, would hardly change the estimate of one to two cases to the thousand.

Considering the number of people who are common carriers, it is evident that man possesses an unlimited resisting power to this disease.

It would be unnatural when we consider how widely distributed the meningococcus is during a general epidemic, and the nasopharyngeal tract being the primary seat of infection that a far greater number of children than adults are affected. Further, with the great number of children with abnormal growths of the nasopharyngeal tract, which afford the proper field for invasion of all germs.

According to statistical reports, about seventy-five per cent of all the cases of cerebrospinal meningitis attack children under the age of fifteen, and fifteen per cent of the cases are under the age of two years. While I have been unable to ascertain a definite report, as to the per cent of children attacked in this recent epidemic, it has been approximately estimated that the ratio is in keeping with the above per cent. Why this disease should have a special fondness for children, might be due in part to usual low resisting power which the ordinary child possesses against the many contagious and infectious diseases, together with the opportune field of invasion as previously stated. And again the unhygienic surroundings of the daily living of so many children.

"Cerebrospinal meningitis is, as a rule, more prevalent in the crowded districts of cities, among the poorer class of people, living under unhygienic conditions, but by no means limited to this class of people." A close study of a general epidemic will show that it will to an extent, attack all classes of people, living under all circumstances of life.

A review of the conditions that prevailed in Savannah, Ga., during the epidemic of 1911 in that city, it was found that a greater number of the cases were in the extreme East and West sides of the city, mostly in the negro population and unhygienic districts. "For several months before cerebrospinal meningitis became general there occurred constantly, sporadic cases in these districts. While in the center and more densely populated part of the city very few cases occurred at all."

It is generally supposed that this germ finds its way to the meninges, by the nasopharyngeal route, through the sphenoid opening,



along the lymph or blood vessels to the base of the brain. Having a great partiality for the cerebral and spinal meninges, especially the inner. "The presence of this germ causes a purulent exudate and the pressure of the exudate upon the root of the nerves produces a general paralysis, which is often found in pronounced cases."

In long protracted cases, besides the pia mater almost every organ of the body may be affected.

The early diagnosis of a case of cerebrospinal meningitis is very essential, when the fatality of this disease is considered, in case proper means of relief are not at once taken.

The clinical symptoms, by which the diagnosis is made, are, as a rule, clearly defined. In most cases an early diagnosis is made.

Some of the more prominent symptoms in children usually are convulsion, vomiting, persistent restlessness and irritability. Fever at the beginning, starting at about 102 and soon reaching 105 or even higher. The pulse in children is very rapid, while in the adult it may be slow. The pupils are generally dilated, though may be contracted of unequal. The Cheyne Stokes type of respiration, is not an uncommon symptom. The skin is highly sensitive, the child will cry when touched. According to Netter, Kernigs Sign will be found in ninety per cent of cases. The diagnosis might be confused with tubercular meningitis. The history of prolonged and lower temperature will usually aid in determining the diagnosis. When in doubt as to diagnosis in a suspected case microscopical examination should be made. Otitis media, articular rheumatism, typhoid fever and pneumonia fever might be confused with meningitis.

The treatment of cerebrospinal meningitis, like that of diphtheria has within the last few years, assumed a definite form, the by-gone local applications and blistering of the skin in the region of the spinal canal are no more resorted to by the physician. Instead, the universal recognized treatment is that of antimeningococcus serum. As to when it should be administered and how has been recently so fully discussed in medical literature, as well as in the recent Monthly Bulletin of the State Board of Health, as to make it appear useless for further discussion at this time. That this paper may be complete we will here briefly outline the general plan.

The technique of administration of this serum, together with dosage and needles for withdrawing the spinal fluid come in packages prepared by the manufacturer of the serum.

The same procedure should be followed relative to asepsis, for a surgical operation. The child is placed upon its side, back bowed. The point of insertion is between the third and fifth lumbar vertebrae or at a point where a line drawn across the back from the iliac crests. Those who have frequently administered this serum advise the ad-



ministration without a general anesthesia. The distance to insert the needle in a child is from three-fourths to one inch into the spinal canal.

The amount of spinal fluid withdrawn is equivalent to the amount of serum injected, or ten to thirty C. C. As this fluid is withdrawn, it should be preserved and measured as to determine the amount to inject. This fluid characteristically turbid, may be purulent with flakes of fibrin. In chronic cases the fluid may be so thick with fibrin as not to be obtainable.

By the serum treatment the death rate has been wonderfully reduced. Before its use became effective, the mortality rate was anywhere from sixty to eighty-five per cent, leaving its victims usually deaf, blind or paralyzed. By the use of the serum this former mortality has been reduced to twenty-five per cent, and even lower, where given within the first three days. To obtain the best results from the use of the anti-meningococcus serum, as is the case in diphtheria serum, it must be administered early in the disease.

Netter and Debre report thirty-six cases in which the serum was administered prior to the third day with but two deaths or 5.55 per cent. The dose should be repeated at the end of twenty-four hours for the first two or three days, or until the symptoms subside. Anti-meningococcus serum has not yet been standardized with an accuracy as has antidiphtheria serum, so we are not able to gage the dosage as in the latter, but must be governed by the results. As the results obtained by the use of the serum is now fully assured, it is the opinion of the writer that early in any suspected case, that serum should be administered if the same can be had. In addition to the great reduction in the mortality, very seldom by its use have we any of the unpleasant sequellae of the former method of treatment.

On April the tenth, out of five hundred cases reported to the State Board of Health of the State of Oklahoma, the death rate was but thirty-three per cent, and in many cases serum was not obtainable until very late and in some cases not at all.

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By G. ELLISON, Norman, Okla.

SPINAL FLUID EXAMINED.

Total number examined.....	230
Number in which age was designated.....	70
Ages:—	
Under 1 year.....	5
1 to 5 years.....	19
6 to 10 years.....	16
11 to 15 years.....	2
16 to 20 years.....	5
Over 20 years.....	33

The following is a list of questions and answers received to the same, on 6th inst., to Dr. A. W. Nash, City Health Officer of Dallas, Texas, pertaining to the recent epidemic of cerebrospinal meningitis, in that city:

1. The number of months of prevalence in your city. Ans. Six
2. Months of greatest prevalence? Jan., Feb., and March.
3. Number of cases reported during entire epidemic? 552.
4. Number of deaths? 124 in hospital; 25 moribund when admitted.
5. Number of deaths of cases treated with serum and number treated without serum? All cases had serum.
6. Number of cases occurring under age of fifteen years? Unanswered.
7. Number of cases where more than one case occurred in the same family? Forty.
8. Number of cases traced to direct contact? 98.
9. Do you advise strict quarantine measures? Yes.
10. What per cent of those who came in direct contact contracted this disease? Unable to state from statistics available.

This report will show that about twenty per cent of the cases was due to direct contact. That the mortality excluding the twenty-five cases moribund, when admitted to the hospital, was approximately twenty per cent. This report does not show the advancement of the disease when serum was administered, nor the sequelae of those who recovered.

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#### DISCUSSION.

Dr. RORN.

The observation of these cases has come very close to me although I have not had the slightest care of them, but we have had several around the country and in one instance one of our physicians had eighteen cases, and in the first seven he had access to the serum but in the other eleven he had no serum but had equal results, and in the minds of some of us we have been wondering just how much was due to the benefit of the serum and how much to the relief of the tension. One of the points the doctor made was that of the injection of 30cc of serum. In some cases we took out 3½ ounces of the fluid. Some of the doctors have had some difficulty in getting the medicine into the canal. Most of them have found that they could enter. In one case a man seventy-six years old had driven out home, about one and one-half miles, and experienced a chill. A physician was called. He had some temperature and pulse was normal. He was given some aspirin and the doctor's conclusion was that he was taking cerebro-spinal menin-

gitis.. There were several other doctors called and they diagnosed the case correctly. The man improved. On the fifth day he developed malignant symptoms and died quickly. In his case we found a great many cells with just one pair. The cells being just one pair to themselves all the way through made it impossible to get the clinic. I think there should always be a lumbar puncture. It relieves the tension.

Another point was that in our experience there was never more than one case in the same family. They were all scattered around. It affected every district about equally, the better and the poorer the same. I would also like for some one to say what their experience has been with urotropin.

DR. JENKINS.

I just wanted to ask the doctor who left the floor a few questions along this line, for my experience is not worth anything along this line. I did general practice a long time and I treated two cases of meningitis a long time ago. The general opinion at that time was that a man who did use opium in a case of real meningitis, anything short of mobbing would be too good. The first case I had I did not use opium. It died. The second I used it and the child lived. Most doctors in cerebro-spinal meningitis are asked not to draw off more fluid than the serum injected. I want to ask if there is any symptoms of collapse.

DR. DAVIS.

I think in the reports that came up from Texas in regard to prophylactic conditions of this they gave it that they use peroxide of hydrogen. That seems to me to be the worst thing that could be used. It has no antiseptic power. The doctor in his paper mentioned that infection occurred through the sphenoid. My impression was that it was through the adenoids. I think the practice of using peroxide is a very bad one. Occasionally we would see a person who came from an infected district and who would want their nose sprayed out. One woman used a 10 per cent carbolic acid solution and you can imagine what her nose looked like.

DR. LITTLE.

In regard to hydrogen peroxide, I feel inclined to say the same for urotropin. My experience with hydrogen peroxide is that it is probably a good seller for the drug stores but that is the extent of its usefulness. The manufacturers of hydrogen peroxide and urotropin have started those names and the State Commissioners of Health have written the pamphlets giving those names, and the laity have followed the pamphlets religiously. It is simply to my mind an illustration that at least a large percent of us doctors are catspaws for manufacturers, and I believe that any one of us has mental

equipment to furnish nasal and throat sprays made up of standard drugs without resorting to patent medicines. We, as physicians, should study our pharmacopœia more and patent medicines less, and do our own thinking instead of having it done from the outside.

DR. WILLIAMS. (Closing.).

There are many things left unsaid in my paper relative to this great epidemic that might have been said. I agree with the doctor upon the use of morphine, having gone through an epidemic about seven years ago. We used morphine then, the only drug we knew to relieve the patients. Relative to the doctor referring to the point of withdrawing spinal fluid, I am highly in favor in all cases where we have pressure on the spinal nerve to relieve the pressure. And as to the use of peroxide of hydrogen and the various sprays, I find that in the best references given they do not use them, and I think Doctor Little hit the key note when he said they were recommended by the commercial interests and we had fallen into them.

### INTESTINAL DISEASES OF CHILDREN.

By CARL PUCKETT, M. D., Physician to the Oklahoma State Home for Dependent Children, Pryor, Okla.

In this article I do not intend to cover the whole field of diseases of the intestines, but rather to confine myself to those disorders that most frequently occur in the summer time, which we usually term "Summer Diarrhoeas."

Disorders of this kind mean trouble and worry to all parties concerned in the cure, and frequently taxes the physician's patience and ability to the limit, for if there is any class of diseases that gives no response, at times, to all kinds of care and treatment it is children's diarrhoeas. Most diseases run a definite course, but this is one condition that we are not sure of at any time. This trouble may run from acute indigestion, through cholera infantum, to ileo-colitis, or either of these may be contracted separately.

Temperature and diet must be guarded if these disorders are avoided, and the latter is the most important. If the diet is all right in every way there is little to be feared. In these diseased conditions as well as others, prevention is better than cure and it seems that the former is needed worse in this than in any other. If necessary, any kind of effort should be exerted to prevent any outbreak of indigestion and diarrhoea in children.

Milk is the universal diet of children, but enough care is not taken to see that it is always the best. Impure milk is cheaper than absolutely pure and wholesome milk and for that reason the former is so often used; that is, it is temporarily cheaper, but more expensive in the long run, just as any kind of lack of care is ultimately more expensive. Proper care in childhood means a more favorable oppor-



tnnity to go through life with a strong and robust body. We do not doubt but that the strong man, physically, is more able to cope with the troubles of life and to take advantage of opportunities that present themselves in the course of existence. We do not lay enough stress on the frequent permanent injuries resulting from diseases that are easily avoided and sometimes considered of little importance in childhood.

I will only mention a few symptoms in the discussion of this subject for most of them are too familiar to make it necessary. Diseases of this kind are usually divided into three forms, clinically, as follows acute diarrhoea, cholera infantum, and ileo-colitis. The first has a gradual onset with an increase in number of stools to pronounced diarrhoea and finally, temperature from 103 to 104. In the second we have a sudden onset with great prostration, vomiting and severe diarrhoea, and always a high temperature. In the third, we have a trouble that is most frequently the result of the other two, yet it may be a primary disease.

Under treatment the first thing thought of is prevention and here is where preventative medicine can do more toward saving life than in any other field of work.

Climate and environment are the two most important questions to be considered. Heat or warm climate or season and infective and debilitating environment encourages the development of diseases of this nature. We cannot change the climate or season so that of the cause of disorders must remain, but environment can be benefitted in most instances. Disordered digestion of any kind may be seriously considered in any child during the hot months. Usually the beginning trouble is not considered serious and the parents use home remedies for several days; some of these remedies might get results if the cause were removed, but the same irregular feeding is kept up or the same contaminated milk is fed with, of course, an aggravation of symptoms. Irregular and improper feeding at any time of the year has a tendency to cause diarrhoea in summer because of a weakening of the resistive force of the intestine; we should not fail to remind our patients of this fact. But when any trouble has arisen it is necessary that we treat in a prompt and vigorous manner. When more or less severe stomach or intestinal indigestion is present we should at once get at the cause, which, in the majority of cases, is contaminated milk, but may be irregular feeding; one of the most difficult things we have to do is to get the mother to stop feeding for a while, or to feed at regular intervals. The child cries because it has pain from indigestion or fever from an infected bowel and the mother gives it something to eat or drink to quiet it, that continues the trouble. A little starving is good for a child with any kind of disturbed digestion and if not that, a great reduction in amount of food. I tell my patients that the milk that a child drinks

or nurses is the same to it as bread and meat to us, which they know would not be a suitable diet in any kind of acute digestive disorders in adults.

In a mild case of diarrhoea I give broken doses of calomel; to a child one year of age, one grain divided in eight doses a half-hour apart followed by oil. This will usually eliminate the undigested and infected contents of the gastro-enteric tract. The next step is not to put something else in that would again cause trouble, but give that as food which is sure to digest, such as barley or rice water, and a gradual increase with a stronger solution of these to diluted milk with lime water up to full strength food.

In more severe trouble as acute infection or cholera infantum, the same course is necessary with additional treatment of symptoms, especially the prostration. I will devote myself to the feeding, and control of the diarrhoea. The food in this should be the mildest possible and it may be necessary to continue the rice or barley water for some time. It is a good plan to change from one of these kinds to the other and also use oatmeal water; these can be seasoned with a little salt and made palatable. Many times a child will crave this diet and enjoy it because Nature keeps away the appetite for that which would be good in health. When the temperature subsides and acute symptoms are gone and there is craving for stronger food it is very essential to proceed with care. A small amount of milk may first be added to the barley or rice water and this very gradually increased. In nursing children the barley or rice water should be given before nursing and in that manner dilute the milk. Medicines can be given throughout the attack. Stimulating treatment and control of the diarrhoea are most essential. Strychnine is the best under head of the former and for the latter, bismuth in some form is good. A little opiates could be given but that is not necessary in every case. Bismuth combined with syrup of rhubarb is a good astringent preparation.

Another kind of trouble in which we have diarrhoea is ileo-colitis; this may be a primary disease, but in the majority of cases follows a neglected, simple diarrhoea and indigestion or cholera infantum. This disease lasts longer than any other mentioned in this paper, and next to cholera infantum is the cause of more deaths than any disorders of this gastro-enteric tract.

The temperature may be normal or up to 105 and is irregular.

In the treatment of this we may use drugs, first remove to part of the cause of trouble in a primary case and to benefit symptoms present. Calomel and castor oil are best for the former and bismuth with possibly opium to control diarrhoea. Large amounts of bismuth should be given to get results. The opium is only given for pain and tenesmus.

I have had much satisfaction from colon irrigation in these cases; used warm, normal salt solution is excellent. It frequently controls the tenesmus and relieves pain, but it should not be used more than twice a day, as a rule, because it may become an irritant. I would especially urge that this be judiciously used in all cases that give any trouble in the treatment, for it is not used as much as it should be.

In this, as well as all other troubles of this kind we come back to diet as a part of the treatment. Nothing in the care of the case is as important as this, or requires as much vigilance. First, barley, rice, or oat meal water given as formerly mentioned. Sometimes it is necessary to continue this for days or weeks and because of this and the severity of the disease we have marasmus and malnutrition. Then comes with improvement of the attack a difficult matter of feeding. We have to begin to add milk, but it is sometimes difficult to decide how fast this may be allowed. The child is usually very hungry and the parents are anxious to satisfy it; this often results in serious trouble because they frequently disobey even the strictest orders and allow too much food. We may then have more trouble than the first attack. It is best in the addition of stronger food to use skimmed milk because fat is digested with difficulty. I usually begin the milk diet by adding a half ounce of the cereal water in only two feedings the first day; on the second day this same amount may be given in alternate feedings and by the third day this much milk may be given at each feeding. Of course, the best way is to proceed with caution and go slower than this in the increase of food if necessary and increase gradually to full feeding, for a severe relapse means in most cases more trouble and danger by far than the first attack.

In closing this, I would emphasize diet in the prevention and treatment of all gastro-enteric disorders. Care should be given little winter-time disorders, as a preventative of summer-time big disorders. Little and beginning disorders in summer should be vigorously treated to avoid big and lasting disorders. No attempt should be made to cure a case of summer diarrhoea by medicines alone. We should take the time and pains to impress on the parents the gravity of any trouble of this kind and enlist their hearty co-operation in its cure. Every detail should be explained and instructions written out. As near as possible reasons should be given them for every step taken; parents may think the child is starving, but if they can be made to know that crowding food at this time is worse than starving, they will more likely understand why, and carry out instructions in a whole-hearted manner.

In this, as many other diseases, we need a campaign of education among the laity and with it there will be a great reduction of misery and suffering.



## COPIOPIA.

DR. C. J. LUKENS, Enid, Oklahoma.

In the creation of Man, the germinal cell from which he sprang contained segments for each and every organ and tissue of the body. Of all the segments that add glory, enjoyment and happiness to life are the segments that give us light. Following the first cry of a babe it perceives light, and that same visual organ continues to photograph everything before it, from the beginning of life to the end, experiencing the most brilliant light, and contending with the dim and defective lights.

Since the advent of electric lights, which have practically turned night into day, we have a marked increase in nervous disorders, and consequently a weakened and defective condition of the sight. An excessive amount of useless work, even in a normal eye, wears on the delicate nerve centers beyond necessity, and they become centers of irritation, conveying disturbed conditions to other parts of the nervous system. Just as a fracture can be produced to the skull by contrecoup, so can an injury be caused to the sight-centers by indirect application of a flood of light to the eyes, which will injure the delicate nerve-centers of sight. Just enough light should be admitted to the eye to perform the function, and not enough to bruise the nerve-centers.

How sweetly Nature tempers light! We look in the distance to the mountains, hills and valleys, and they convey restful pictures to the conscious centers of the brain. We should temper the light so that when the eye is under accommodation it is laboring under the least effort regarding the nerve-centers and muscles. The effort upon the nerve-centers begins early in the morning and continues until late at night. For an average of sixteen hours the visual centers are constantly under strain. No other centers in the nervous system are capable of such endurance.

What a miserable world this would be if sight were suddenly extinguished! God gave us light, and sight, and we should be continually mindful of this greatest of all blessings, and use every effort to prevent the early worn out conditions of sight. Muscles have energy stored in them but all such energy depends on the human powerhouse. Nerve-force that performs all the functions of man is one of these forms of energy manifestations. The nerve-power of the eye must be kept at normal in order that the muscles of the eye will properly perform their work. The muscles of accommodation are so delicate that a slight deficiency of nerve-energy will seriously interfere with their function and perhaps totally destroy accommodation. The occasional overtaking of the eyes may not result in observable injury, but oft-repeated excess will deprive them of their functioning power.



Of all the organs of the body, the eyes are capable of demanding and obtaining the greatest amount of nerve-energy. The feeling of vision is the greatest of all the senses, for it is aroused by light, and the same exciting element, by continued application, produces a worn-out condition of the eyes. Rays of light reflect from various objects, pass through the cornea, aqueous humor, the chrySTALLINE lens, the vitreous body, and then reach the retinal nerves. The delicacy of this touch on the retinal nerves is inconceivable, and its constant application by both soft and irritating mediums of light, gradually but surely reduces the visual acuity, and as the years go by we experience a dimming of vision; and many young persons find they are in the midst of refractive errors brought about both through neglect and abuse of their eyes. They have failed to apply the methods necessary to preserve their visual organs and the nerve-centers governing sight. A patient exclaims, "Oh, there is nothing wrong with my eyes, for I can see perfectly!" He may have perfect vision and yet a most destructive brain-strain may exist. All the work connected with the function of sight is done at the base of the brain. We do not see in the eye,—it is simply a camera that photographs the objects.

Young persons who complain so much of having pains at the base of the brain frequently have only mild refractive errors (in most instances astigmatism) which, if neglected, will slowly but surely disturb the nerve-energy of sight, and cause premature worn-out conditions of the sight.

It has not been my sole object in this paper to deal with presbyopia and worn-out conditions of the eyes in those of three-score years or more, but to cast some reflections and offer some suggestions to benefit the younger people, that they may learn to be cautious, prudent and careful concerning the most useful organ of the body—the eye.

Never draw a check on a bank in which you have no deposit: likewise do not draw upon the latent forces of the eyes. The eyes, both intrinsic and extrinsic, are capable of a certain amount of endurance, and no more, without irreparable damage.

The immortal Donders gave us the key-note to refraction and its remedial agencies, and we are traveling in the same path, but with improved methods and suggestions added since; and now that refraction has become an exact science, we are enabled to relieve, restore and protect declining visual energy. With the co-operation of the laity, who are becoming more interested in the care and early attention of refraction, we hope to avert the high degrees of refraction and untimely worn-out condition of the eyes, as have existed in the past.

## JOINT DISCUSSION.

DR. DAVIS.

These papers are very interesting and what Dr. Jenkins said about his reflexes is very important. That was touched on last night. The symptoms may be in the eye due to morbid conditions in other parts. I do not believe I could add anything to what he said, except to emphasize the points brought out in both particulars.

DR. NEWTON.

I enjoyed Dr. Jenkins' paper very much. I treated two patients. A patient came in from the country and had a diagnosis and after the diagnosis the Doctor said he did not find any vision. Her vision was about 20-40 and she was wearing a 75 sphere. The trouble is we will satisfy ourselves without close enough examination and testing. I was sorry I missed part of Dr. Jenkins' paper.

DR. FERGUSON.

The subject of ocular reflexes is so well established that I do not believe I will take up much time in discussing the paper. The Doctors reported the usual trend of conditions as they exist. The point made by Dr. Davis of reflexes referred to the eye from other points and also spoken of by Dr. Jenkins in the report of some of his cases ought not to be lost sight of. Nasal trouble and throat trouble and other trouble—this gives us the idea—in any case of reflexes such as nausea or vomiting and head ache and so forth we have the cause and so the eye must not be forgotten. There are many cases where it is not necessary to give full grades of glasses and others where it is necessary to go above. I think each case should be for the judgment of the physician. I thank the Doctors for their papers.

DR. WESTFALL.

It is true as Dr. Ferguson says that each case is a case by itself. I have found a number of times and I recall one time a woman forty years old where I was able to correct from about 95 sphere to a 50 cylinder and she wore about a 25 sphere and 50 cylinder and that is as much as she could be comfortable with. I think most of you find our cases come more or less in crops. I have noticed recently a number of cases along the line of reflexes in which an examination of the nose has solved the problem. In a majority of these cases they complain of the eye and head ache which they say they think comes from the eyes. In some cases these did have errors in refraction, but after the nasal condition was eliminated this other cleared up. In some of these cases the refraction was properly corrected and they wore the same correction after the operation as before and in others there was a change.

## DR. McHENRY.

These are certainly very interesting papers. The subject of ocular reflexes is not one we meet every day, and when we do meet it we ought to be able to go into it correctly. In a paper of Emerson of Kentucky he had seven cases where he got results in the correction of the septum. Several of the cases were able to leave off glasses entirely.

On the subject of Copiopia: I have one case in mind where a man came to me a year ago, forty-three or forty-four years old who had been refracted by such men as Stevens and he had been told that he had nose trouble, and from what cause I do not know, but I was not satisfied until I had refracted him. He was unable to read with glasses less than two and one-half diopters. I told him, "You ought to be able to get that down." And I gave him about one and one-half and he came back in a few months and said he had tried them and wore them most of the time, but they were not satisfactory. "It is more comfortable to go back to the  $2\frac{1}{2}$  diopters." He was a man forty-four or forty-five years old, but had lived sixty or sixty-five in reckoning his age by the heart, arteries and so forth. He had led a hard working life. That is the only case I ever had where I was unable to find any refractive error and yet the man needed two and one-half diopters to read.

## DR. BARNES.

Copiopia is a trouble we have to contend with and the ocular reflexes are very interesting. We do not give enough attention among our profession to the reflexes. A few of our men are cranks on the refraction and they give us points that ought to be considered by our profession. We find lots of men are giving much time to it and they get as good results as we do and in order to keep abreast of the times we should give it more study; and the papers brought out here this morning the importance of having a general knowledge of medicine so as to be able to make diagnosis of cases, because the symptoms are so varied that it is hard to tell whether we have got some trouble causing the eye trouble or the eye trouble is causing other trouble. The papers should be considered by us all.

## DR. STOOKSBURY.

I do not wish to detain you long. The papers have been very well discussed and we are also ourselves familiar with the reflexes and while I heartily endorse the papers I was thinking of one instance I have noticed in my practice of these reflexes. I do not know how to explain it: A person coming to you suffering with this ocular head ache which we usually get results from by properly fitted glasses. I have found in the small errors of refraction we have great suffering. The people will complain more of an error that is not so much an error.

THE CHAIRMAN.

I will ask Dr. Lukens to discuss Dr. Jenkins' paper.

DR. LUKENS.

I do not know that I could add anything to Dr. Jenkins' paper. It is very carefully gotten up and gone over. The question about reflexes has been one of great magnitude and should be studied carefully and from every standpoint. Specially difficult cases should be looked into to see if there could be a possible remote condition from the eye, which was producing the condition of the eye.

THE CHAIRMAN.

I will ask Dr. Jenkins to discuss Dr. Lukens' paper and close the discussion on his own.

DR. JENKINS.

One point I want to emphasize: We should not make a demand upon the latent vision. It is like drawing a check on a bank with no money. Whenever a demand is made the anatomy of that individual is going to suffer somewhere.

As to anything more about my paper, I do not wish to discuss it further. I thank you for your liberal discussion of it and your patience with me in digressing from the subject. The last case, number eight, I reported was a recent one and of so much interest and I was a little puffed up for relieving the boy after having so much trouble that I took the liberty of imposing on you and I thank you for the spirit in which you received it and want to emphasize that ocular reflexes are not the only reflexes. I am sorry there are not some more of the general practitioners here to give us the benefit of their ideas on reflexes they meet and the disturbances they are called on to treat caused by trouble in the eye.

THE CHAIRMAN.

I'll ask Dr. Lukens to close the discussion on his paper.

DR. LUKENS.

I want to mention one thing in connection with Dr. Stevens' case: It has been my observation and experience when people get their glasses they very frequently have an over-correction. My idea is to give them as little as they can get along with. Of course, I think the correction should be such as will bring comfort.

This section is now over its program, as I understand, and I have a case I would like to speak of if there is no objection. It is very short.

THE CHAIRMAN.

Is there any objection to the Doctor's reporting the case?

No objection.



DR. LUKENS.

There was a young man from our country, who had been in the Philippine service, who was referred to me for a pension. He came to me reporting he was absolutely blind, and here is a condition that I want to mention, I can not account for: That I could throw light upon the eye and throw the light off it and the pupil did not respond. He was twenty-two years old and he mentioned he was operated on for appendicitis and the doctor in operating on him spilled some ether in his eye and that caused his total blindness, and I said, "I do not understand why you should be blind for a long period. Ether at its worst, would only have a transitory effect."

He said, "I am blind, just the same." And I said, "Young man, I cannot reconcile myself to the condition." That matter made me suspicious. I said if the man was entitled to anything he was entitled to the \$72.00, and I so reported, but I put a question mark after it. They asked me why I put the question mark there, and I told them I suspected the fellow, but did not catch him. I threw the light on his pupil and it did not respond. He had indications of optical nervous disease. I want to say that this same man got by three army surgeons, and got out of the army service. He wanted to be released and his father assisted him, and he got \$72.00 a month. The agent came back to me about three months afterwards, inquiring who had brought him to my office, and I described the man to him, did not know his name, and he said, "That is his father. And we intend to prosecute his father for he is back of all this. Don't you know this fellow went out from your office and in three days after he left your office he pitched a game of ball and won the game?"

His pupil absolutely did not respond to the light and there was no dilation. He got by me and three army surgeons, but he got by me with a question mark. The reason I mention that is because the man had such complete control of his eye.

DR. McHENRY.

Did you examine the fundus with ophthalmoscope?

DR. LUKENS.

Yes. I took the field of vision and he absolutely did not have any field of vision, only central vision, so far as I could tell. He claimed he could see my hand three feet away, through central vision, but could not see me any other direction from his eyes. He only had vision enough to see my hand three feet from his eye. He did not claim to be absolutely blind, but so nearly blind as would get him the pension.

## EAR COMPLICATIONS FROM ADENIDS.

By H. COULTER TODD, A. M., M. D., Oklahoma City.

*(Professor of diseases of the ear, nose and throat, at the Southwest Post Graduate Medical College and Clinical Lecturer on diseases of the ear, nose and throat at the State University School of Medicine.)*

Adenoids in children have ceased to be looked upon as trivial. Their effect in disfiguring the face, causing the narrow pinched features, the dropped chin with its idiotic expression, the high arch with the protruding irregular upper teeth, the contracted chest, the general anaemic condition, the disturbed breathing and the unnumbered nervous manifestations are quite familiar to most physicians and many parents.

The more serious effects of adenoids, namely, their injury to the ears of the child, have not been so generally recognized. *It is conservative to state that 85 per cent of all earaches, 90 per cent of all deafness and 95 per cent of all discharging ears in children are due to adenoids.*

*Earache* is due to an inflammation of the middle ear and tympanic membrane. The old treatment of equal parts of tinctura opii and oleum dulcis is seldom indicated except as a measure for temporary relief. In a large percentage (85 per cent at least) it will be found that adenoids are present in the vault of the pharynx or about the fossa of Rosenmuller causing obstruction to the pharyngeal opening of the eustachian tube. This interferes with the proper drainage of the middle ear, prevents the passage of air into this space and causes the retention of any matter capable of producing inflammation and acute catarrhal disturbances. Large quantities of adenoid tissue is not necessary to cause disease of the middle ear. Very small growths in the region of the eustachian orifice producing few, if any, of the more noticeable symptoms of adenoids and hence often overlooked, may cause the most serious and aggravated forms of middle ear disturbances. An inexperienced operator may easily fail to remove these smaller growths and hence not obtain the beneficial results desired. On the other hand, there are many who deem an operation unnecessary unless the child has all the marked symptoms, such as the adenoid expression, difficult nasal breathing, etc. Only those with special training or experience should pass final judgment upon all cases of suspected adenoids. Recurrent earache in a child should call for a very careful examination of the vault of the pharynx.

*Deafness* is a serious complication of adenoids. It may or may not be accompanied by pain in the ears. The only ear symptoms noticeable with the child may be that he is more or less hard of hearing in one or both ears. This form of deafness is due almost wholly to eustachian obstructions so that the air may not pass into the

middle ear and maintain an air pressure upon the inner surface of the tympanic membrane equal to the normal atmospheric pressure upon the outer surface. As a result the tympanic membrane is pushed inwards bringing pressure to bear upon the ossicles, which renders them less motile and interferes with the sensitive vibration of the foot of the stapes within the foramen ovale. Deafness may also be due to inflammatory trouble in the middle ear, either purulent or non-purulent. This, as will be shown later, is due to the presence of a diseased and enlarged pharyngeal tonsil (adenoids). The injury done to the middle ear and hence the deafness due to this form of middle ear affection is often more or less permanent. The fact that practically 90 per cent of all deafness in childhood is due to the presence of adenoids should cause us to endeavor to see that they are always removed early and completely.

*Discharging Ears* in childhood is one of the most serious conditions with which they may be afflicted. The sequellae of purulent otitis media may be partial or total deafness, facial paralysis, impaired mentality, and even death from mastoid abscess, brain abscess, sinus thrombosis or other grave complications. The physician who indifferently allows the adenoid children of his patrons to remain uncared for subjects them to all of the above possibilities, which if they do not actually destroy the child, frequently maim him for life and impair him for the greatest usefulness. *The statement that children outgrow adenoids is false.* These growths do atrophy in most instances after puberty, but then they have already wrought all their serious harm and brought about conditions which never can be overcome.

The reason that so large a per cent of otitis media purulenta (95 per cent) is due to adenoids is quite apparent. The infection enters the middle ear by way of the eustachian tube, being forced up into the tube during the act of blowing the nose. The presence of adenoids prevents the free return of the infective material, hence it is dammed back into the middle ear where it does such serious harm. Remove the adenoids and you at once establish drainage by way of the eustachian tube and if the pyogenic process has not gone to the point of bone necroses or the mastoid process had not become infected, a large percentage of these discharging middle ears will get well without any further treatment.

When shall adenoids be removed? As soon as they can be detected. They are frequently present in infants and interfere greatly with their ability to nurse the breast. Nothing can be gained by delay, and all the grave possibilities mentioned in this writing as well as the many others we have not chosen to discuss, constantly menace the child while adenoids are present.

To recapitulate: Adenoids in children are responsible for a large

percentage of all their troubles, causing earache, deafness and discharging ears. A discharging ear from purulent otitis media means a ruptured tympanic membrane, or the ear drum as it is incorrectly called.

## REPORT OF A CASE OF INTUSSUSCEPTION IN AN ELEVEN-MONTHS-OLD CHILD.

W. E. DICKEN, M. D., Oklahoma City, Okla.

In intestinal occlusion, we find in looking through the literature, on the subject, such names, as ileus, volvulus intussusception, iliac passion, intestinal strangulation and miserere colic, which were employed to describe a morbid condition, characterized by absolute constipation, ballooning of the stomach, uncontrollable vomiting and severe pain.

For a long time intestinal occlusion was considered to be the result of spasm, then the intestines were supposed to be strangulated, but in intestinal occlusion, we have a term, which is applicable to cases of intestinal obliteration. Intussusception possesses the characteristics of both strangulation and obliteration, we understand by this the entrance of one portion of the intestine into another portion and in most cases, it is the upper portion which enters the lower portion, but may be ascending. Such an invagination may be found to consist of three tubes, the outer one we may term the intussusciens, the part that enters is called the intussusceptum, the union between the two is the neck, and the junction between the entering and returning intussusception, is called the head or apex, this of course is the usual condition, but we may have, a double intussusception, in which there are five tubes instead of three.

In children practically, the sole cause, of intestinal occlusion is some form of intussusception. Invagination occurs most frequently in children under fifteen years of age. About forty per cent of all cases, collected from the literature occurs during the first year of life, in 244 cases 142 were males, 102 females.

The ileocecal valve seems to be the most common location and the invagination does not occur, actually at the valve, it is usually in the neighborhood, however, either above or below. When intussusception involves the ileum, we usually find it in the lower portion: if the large bowel is the part affected, the sigmoid flexure is the part of invagination.

Intussusception of the rectum or of the duodenum is extremely rare.

The long mesentery, in early life, of the cecum is probably the cause of the most frequent ileocecal variety. While later in life the cecum becomes more firmly attached to the posterior abdominal wall;



and in early life, again we have a great disproportion between the size of the ileum and that of the cecum.

We must also bear in mind the differential diagnosis of three special varieties of intestinal occlusion, namely, volvulus of the sigmoid flexure, fecal impaction and intussusception in children, for in any form of acute intestinal obstruction, we have sudden pain, intermittent or constant, which tends to become constant with time, vomiting early, which is severe and becomes feculent, constipation more or less absolute, with abdominal distention and shock. No trustworthy conclusion can be drawn from the seat of the pain, to the seat of the obstruction, unless local peritonitis comes on. In all forms of obstruction, the region of the pain is usually the navel, in complete obstruction the pain is constant, though with exacerbation, while an intermittent pain points to a partial obstruction. In acute cases it is impossible, to discern coils of the intestines through the abdominal wall.

With these few precursory remarks, I wish to report the youngest case of intussusception, that I have ever had the opportunity, to operate upon. About three o'clock on the afternoon of April 27th, 1912, I was called to see an infant, eleven months old, which had a temperature of 102 and a very rapid pulse, assuming all the types, of a child suffering with auto-intoxication, she had a history however, of several copious bowel movements, several hours before, at which time, the patient strained and cried quite a bit. Not recognizing fully at this time, my patient's conditions, I prescribed some mild chloride powder, assuring the mother that I thought the baby would improve. In less than four hours from my visit, the mother telephoned me that the baby looked so strange, and was passing so much blood from the bowels, that she wished I would call again. The baby was found to be almost in a comatose condition, with a very rapid pulse, temperature 102, with paroxysms of straining, ejecting only a small amount of bloody mucus from the rectum.

I inserted my finger up the rectum, realizing by this time that I must have a case of intussusception, and I immediately touched; within two inches of the rectum, an oval mass, which we recognized as the head of the intussusception. We immediately advised an operation, and the patient was sent to the Oklahoma City General Hospital, and upon opening the abdomen, under ether anesthesia, we found that the ileum had invaginated the cecum, and the intussusception extending as far as the commencement of the descending colon, dragging the appendix in with it, forming of course a complete occlusion. We had no trouble in catching the intussusceptum with one hand and using counter-traction, of the intussusception, with the other hand, and by these means, we pulled the one gut out of the other, bringing about a normal status and position of the ascending and transverse colon with the ileum. We did not stitch the bowel, but

closed the abdomen the usual way, consuming only ten minutes, from the time we made the incision, to the closing of the abdomen. The patient's bowels moved twice during the first eight hours, after the operation; but about forty-eight hours from the time of the operation, the patient had obstinate vomiting, not being able, even to keep water on the stomach, giving all the signs of ileus paralyticus. Realizing the seriousness of the condition, we prescribed five grains of powdered calomel by mouth, and instructed the nurse to give 1-200 grs. of strychnine q. 4 h. hypodermatically. To our gratification the patient rapidly improved, having free and easy movements from the bowels, making a complete recovery and up to this date, has no further symptoms of the former trouble.

I only mention this case, for three reasons, first, to note, what an early diagnosis, followed by surgical intervention will accomplish in so young a patient; second, the lack of return of the intussusception after the omission of intestinal suturing and third, the efficacy of heroic doses of calomel with hypodermics of strychnine of ileus paralyticus.

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### **GANGRENE OCCURRING IN STATUS EPILEPTICUS--- DEATH FROM SAPREMIA.**

E. A. THURLOW, M. D., Norman, Okla.

#### **REPORT OF A CASE.**

Name of Patient—Grueter, G. Age 22, nativity, U. S. A. Occupation, farming. Admitted, March 28th, 1912.

Family History—Father and mother living and well. No history of epilepsy among antecedents.

Personal History—General health excellent as a child. At tenth year epilepsy began, attack increasing from Petit Mal to Grand Mal in type during first year. Seizures continued with increasing intensity at intervals of two or three weeks until present time. In January, 1912, there occurred a delirium (Probably epileptic delirium,) following seizures; patient escaped from home and when found toes of both feet were frozen. Amputation was performed shortly after this.

Examination at Time of Admission—Patient in stuporous depression, consciousness clouded, general apathy and mutism. Physical condition, appetite good, trophic condition good; pulse rapid and soft. Pupils react to light and accommodation, dilated evenly. Heart sounds weak, no murmurs. Feet cyanosed appearance. Edematous swelling up to malleoli. Unhealed, amputation wounds at metatarsophalangeal joints on both feet with slight purulent discharge. Odor not offensive. Small perforating ulcer on ball of left foot, considerable tenderness.

Under moist bichloride dressing (1-4,000), and internal treatment consisting only of increased diet with milk, eggs, etc., the amputation wounds improved rapidly. Digitalin was given hypodermically to support the heart.

Subsequent History—Mental condition clear after ten days. Amputation wounds entirely healed after two months, by second intention. Tenderness absent, patient walks well, no swelling or oedema, gain in weight of about twenty pounds. Patient feels well, but has occasional epileptic seizures.

August First—Following epileptic status of three days duration, wounds, in feet begin to break down and become tender. Bichloride dressing re-applied without improvement. Purulent discharge becomes increased steadily in amount and foulness, especially from perforating ulcer, which has reopened on ball of foot. General symptoms, malaise and loss of appetite.

August Ninth—Patient has severe chill with rapidly rising fever and profuse sweat, temperature 102.06 in axilla. Chills repeated after twenty-four hours, then at frequent intervals. Malarial test negative, Widal negative. These attacks of chills, fever and sweats continue with increasing frequency from day to day.

August Fifteenth—Purplish spot appears on dorsum of left foot. This breaks down, leaving an ulcer within twenty-four hours. Odor gangrenous, ulcer enlarges rapidly. Cyanosis of distal portion of foot. Temperature chart shows septicemic characteristics. Local cauterization applied to gangrenous area.

August Seventeenth—Entire foot becomes cyanosed, diagnosis made of sapremia of gangrenous origin. Operation determined upon, Dr. C. S. Bobo in consultation advising amputation at middle and lower third of thigh. Ether anaesthesia, temperature of patient 104 at beginning of operation. Amputation by long dorsal flap method. Operation without incident except for marked oozing of dark blood from medullary portion of femur. Strychnia 1-40 grain and one pint of physiological saline administered hypodermically. Moderate amount of shock evidenced by restlessness and heart condition. Soft thready pulse, dilation of pupils, etc. Placed in bed with usual treatment for surgical shock. Death took place in four and one-half hours.

This case is reported to illustrate the marked lowering of resistance which takes place in status epilepticus, causing old healed wounds to undergo gangrenous degeneration.

## UNILATERAL SURGICAL KIDNEY WITH PRESSURE ON THE COMMON DUCT, CAUSING JAUNDICE.

CURT VON WEDEL, JR., Oklahoma City, Okla.

### CASE REPORT.

In reporting this case, I do so because of its peculiarity, and to show how easily one may be mistaken in diagnosis in surgery of the upper abdomen.

Mrs. S., aged twenty-eight—no children—menstrual history negative—no illnesses.

### PREVIOUS HISTORY.

Has been suffering with pain in back and right side for the past four or five years; pain of an indefinite cholic character. Condition diagnosed as gall stones, inflammation of the stomach, peritonitis, etc. Patient able to do her daily work until present attack. Present attack began about three weeks before being called to see her, with a sudden sharp pain in the right epigastric region, which was referred to the shoulder, accompanied with fever, vomiting and a marked chill; has complained of daily chills since; was given quinine by physician in attendance.

At the time of my visit, patient complained of severe epigastric pains, stabbing in character, which were referred to back and shoulder. Had a chill a few hours before; temperature 103; pulse 86; sclera deeply jaundiced; general jaundice. Examination showed large mass in the right epigastric and lumbar region. Dullness running into the liver above and to the spine behind, extending almost to the linea alba in front. Marked rigidity and tenderness. Vaginal examination negative; blood count 14,000. Poly 84 per cent. Urine high specific gravity, dark in color, no pus, only a few leucocytes, no blood.

Operation—Because of the uncertainty of diagnosis, small incision was made through right rectus; gall bladder normal, easily compressible, but a large retroperitoneal mass was immediately palpable, lying adjacent to the gall bladder and ducts, causing more or less pressure. Diagnosis of kidney condition was made. Left kidney palpated and found to be normal. Anterior incision closed. Patient turned on side and lumbar incision revealed a large surgical kidney. Kidney so large that incision was extended almost to anterior superior spine. Kidney badly adherent and delivered with great difficulty, causing rupture of a large abscess with considerable escape of pus. Pedicle very deep and because fear of legature slipping, clamp applied and protected with gauze. Incision closed with deep though tough silk worm gut. Clamp removed in three days and drainage continued. Wound healed in about six weeks. Patient made an uneventful recovery and at present time has no symptoms and is in



very excellent health. Jaundice cleared by the time she left hospital—that is, two weeks.

Kidney on examination, was found to contain several large abscesses, having no apparent connection with the pelvis; there being little or no evidence of a pyelitis, which was probably the reason for the clear urine. Jaundice was undoubtedly caused by the pressure of the upper pole of the kidney against the ducts.

This case is of most interest, as it shows that a surgical kidney by pressure may cause jaundice, and also that its urine may be free from pus. It is unquestionably true that the patient had pus in the urine at some time, but because of fibrous changes, the abscesses became walled off and so finally were isolated.

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### DR. FISHMAN'S VIENNA LETTER.

Vienna, Austria, Dec. 3, 1912.

In this communication I shall attempt to say a few words upon a subject which is far broader and greater than one can present in a very exhaustive article. I feel that I owe an apology, therefore, for taking up this topic, but thought that the readers would like to know something about the present European opinion of the use of Salvarsan and the treatment of Syphilis and shall give as far as I have been able to learn, some of the methods of those clinics with which I have thus far become acquainted.

Within the past few years the recognition and treatment of Syphilis have undergone radical changes. From the discovery of the Spirochete Pallida by Schaudinn and Hoffman, in 1905, to the presentation to the world by Salvarsan, by Ehrlich, in 1910, the researches and studies in this branch have been rapid and productive of considerable good results, although the state of syphilitic treatment, nevertheless, remains chaotic at the present time. That there is such great variation in the methods of treatment by the authorities in this work shows that the results have not been uniformly good and acceptable by all alike.

A few of the salient points which have been brought to light in the recent studies of the disease need be mentioned. The organisms spread rapidly through the body after infection so that distant metastases have repeatedly been demonstrated before the primary lesion had fully developed. Early changes have been demonstrated in the spinal fluid so that Lange, of the Weichselmann clinic, claims to make a positive diagnosis by means of his colloidal gold method in all stages of the disease, and even more specifically than by the Wassermann test during the early stage. The spread of the organism is principally by the blood stream and only regionally by means of the lymph vessels so that the distant lymph glandular enlargements are local manifestations of a preceding hematogenous dissemination. The wide-

ly accepted laws of Profeta and Colles had their origin simply due to the fact that syphilitic cases were mostly not cured and therefore a previously infected individual was not able to contract the disease further. Since the introduction of the more energetic treatment and the use of the serologic methods of diagnosis to verify the presence or absence of the disease repeated exceptions to these laws have been shown. Cases of reinfection are not at all rare and a positive Wassermann reaction is always obtained in a mother who gives birth to a luetic child.

The most interesting series of ape experiments in connection with the study of Syphilis have just been reported by Finger. It is well known of course, that the anthropoids become infected in a typical manner going through the various stages of the disease. Finger has shown however, that the lower species, namely *Macaca* type do not produce the typical symptoms but an abortive type of the disease. These animals are susceptible of infection only in certain parts of the body, the genital region and about the eyes. The primary lesions consisting of a number of soft brownish small pea-sized eruptions which gradually become serons and pustular in character, develop after an incubation period of about fourteen to twenty days. The animals do not seem to suffer further from the infection and this rash disappears after a comparatively short time. They do not produce any further symptoms except a recrudescence of this eruption on the same locality after five or six months.

This with other observations led Finger to presume that possibly these manifestations were similar to those of the variolar manifestations of the cow-pox and he thought perhaps the pustular eruptions might act as efficiently in vaccination against Syphilis as vaccinia does against smallpox. He therefore sent a number of these infected animals to Metchnikoff in Paris who found that not only did it not immunize the apes against subsequent inoculations of Syphilis, but that some of his animals contracted a typical primary lesion and subsequently ran through a typical course of the disease.

Further work along this line showed that these *Macaca* actually harbored Spirochetes in some of their internal organs, spleen, bone-marrow, ovaries and testicles, without producing pathological changes in them. The other organs however, were free from the organism. This he concludes, shows how an infection may remain latent for long periods of time and then for some reason suddenly break out anew. Also that certain organs have the power to overcome and resist an invasion of the organisms.

The opinions of Rome Congress held during the summer were that the injection of 606 gets rid of the greatest number of Spirochetes possible and that the injection of several small repeated doses followed by mercury injections will dispose of those in other parts of the body.

It was the opinion of the adherents of Salvarsan Therapy that large single doses are not of the greatest value and that the Salvarsan should *always* be given intravenously once a week and that the length of treatment is governed by the Wassermann reactions. The tests made at intervals gives the most reliable information of the state of the disease. They were also of the opinion that the Neosalvarsan was weaker than the old Salvarsan and not less dangerous nor better.

Among the German speaking people there is a great difference of opinion regarding the benefits of the drug varying from that of Weichselmann of Berlin who uses only Salvarsan to that of Finger of Vienna—one of the old school—who uses it only exceptionally.

In the early period, that is, during the primary stage, the efficacy of Salvarsan is conceded by nearly everyone and it is used practically by all authorities as an abortive treatment. Some excise the ulcer in all cases, others only when it is conveniently located, still others, not at all.

Weichselmann uses small doses 0.15 to 0.3 Grams every three to four days until the Wassermann remains negative and he really obtains brilliant results as far as he is able to follow them. He uses this method in all stages and in all cases and calls to aid mercury only when the symptoms are refractory, and refuse to respond to vigorous Salvarsan treatment. He is of the opinion that the drug is not responsible for the ill effects after the use of Salvarsan but lays stress upon two points—first, errors in technique upon part of the operator and second, irregularities on part of the patient, chiefly in susceptibility of the kidneys. In the first class of errors he claims that the use of a freshly double-distilled water is absolutely necessary for the preparation of the drug and that it must not be allowed to stand for any length of time after solution. In his second source of ill-effects, he points to the fact that a reaction on part of the patient when the technique is perfect will nearly always show a reduction of urinary excretion with albuminuria. He states that a febrile reaction is abnormal and is not a reaction on part of the organism as has been thought. Weichselmann claims to have given over 30,000 injections without a single case of optic atrophy.

Lesser of Berlin is more conservative with the use of the remedy and employs it in the very early stages exclusively as an abortive treatment in small frequently repeated doses with excision of the primary ulcer. In the latter stages he also uses Salvarsan but in larger doses aided by Mercury injections as the soluble salicylate or as the calomel emulsion 10 per cent in oil and controls his treatment by the Wassermann reaction.

The Viennese generally tend to favor mercury, Finger particularly using Salvarsan as little almost as Weichselmann does the mercury. He gives the ointment rubbings for home use and the injections.

of the Salicylate or Cyanide when the patients present themselves for treatment. Salvarsan is used by him only in the primary cases and those refractory and recurrent cases which do not do well with mercury. This of course is a confession that the new drug has a great use.

Oppenheim takes the stand that Salvarsan is valuable in the early stages and gives it in small repeated doses in the primary and early secondary lesions. This is supplemented however, by the use of the soluble mercury injections particularly the Salicylate, while in the later cases he, too, gives mercury in preference to Salvarsan, except in those cases which do not react promptly to mercury treatment.

I have purposely refrained from stating dosages because they vary so much but will only say that a large dose of Salvarsan is considered to be 0.5 to 0.6 G. and a small dose 0.1 to 0.2 G. The soluble mercury salts are given 0.01 to 0.03 G.—(1-6 to 1-2 grams) intramuscularly or subcutaneously. There are individual variations that are controlled and regulated by the serologic findings in each case.

C. D. FISHMAN.

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## EDITORIAL

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### SECTION CHAIRMEN FOR THE ENID MEETING.

As the different Section Chairmen for the Enid meeting which will be held May 13, 14 and 15th will soon begin their activities for making up the program for that meeting it will not be out of place to state their names and addresses here for the information of those who may be interested.

Surgery—J. Hutchings White, Muskogee.

Pediatrics—W. M. Taylor, Oklahoma City.

General Medicine and Nervous and Mental Diseases—C. J. Fishman, Oklahoma City.

Eye, Ear, Nose and Throat—J. H. Barnes, Enid.

Gynecology and Obstetrics—S. H. Landrum, Altus.

If you propose to offer a paper for this meeting you should select your subject as soon as possible in order to avoid possible delay at the last moment in the preparation of the program.

The making up of this program is an enormous task, requiring a great deal of correspondence and the chairmen will appreciate any lightening of the task you may help them to by promptly answering letters with reference to the program.

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### CHRISTIAN SCIENCE AND DIAGNOSIS.

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Failure of Christian Scientists to Differentiate Dropsy and Pregnancy.

To the Editor:—Apropos of the wonderful cure (?) of Mabel Hite by the Christian Scientists as reported in The Journal (Nov. 23, 1912, p. 1896), I think that the report of a case in which I was called last month will be of



interest. I was engaged by a man to attend his wife during her confinement, which was expected to occur in a few weeks. He said that they were Christian Scientists and gave me to understand that I would be called when labor began. In answer to my questions, he stated that his wife was feeling well and that all of the functions were normal. In due time I was hurriedly called, as the woman was said to be in labor. When I arrived at the house I was greatly shocked to find the patient sitting up but in a dying condition. On each side was a sister "healer" assuring her that she was just nervous, when in fact she was almost pulseless, lips blue, cold to the knees and elbows and gasping for breath.

As soon as I saw the conditions I had counsel called. We found that the patient was not pregnant, but had general dropsy. She died within two hours. A post-mortem was refused, so we were unable to say what caused the dropsy. Oh, Religion, what fearful things are done in thy name!

B. N. STEVENS, M. D., Chillicothe, Mo.

—Journal A. M. A., Dec. 21, 1912

This only evidences the weakness of all schools or cults who propose to diagnose and treat disease without proper preparation by long and faithful study along approved and well tried lines: to this case citations innumerable almost could be added, but it is useless to do so unless we as the regular and predominant school of medicine having the welfare of millions of people on our hands can appeal directly to the people by our works and show them we have something better to offer them.

It has been hinted that incompetency and ignorance in our own ranks has had something to do with the dissatisfaction of a portion of the people who have gone to other sciences (?) for relief, and this may in a measure be true and one is inclined to give credence to such argument when we recall that in our own profession we have similar cases arising. A case in point occurred in Muskogee in the hands of a practitioner who had been out of college more than thirty years—and the word out is used in its fullest sense, for it is doubtful if he ever returned for any purpose. This practitioner prepared a patient for operation for a tumor and had hospital arrangements made for the operation, which was set for a few days away when another physician was called, diagnosed pregnancy and in considerably less than a week delivered the patient of a living child.

For the Christian Scientist those who think will offer the excuse of ignorance, or fanaticism or both, but for the physician there is no excuse except ignorance which he has no right to fall back on.

Our own Augean stables will not be cleaned in a day, but only by years of patient study and application.

### THE COLLECTION OF BILLS.

The collection of bills for services is one of the most important matters a physician has to provide for and it is notorious that many of them suffer on account of their lack of business ability and their diffidence in the collection of what is justly due them.

The Muskogee County Medical Society has recently taken a step that may lighten the load on some of its members in this respect. Following the plan and suggestions of the Los Angeles County Medical Society with some slight variations to fit local conditions this

society recently appointed a committee to consider all phases of collections and collection agencies which resulted in the selection of a firm of attorneys to handle all collection matters the members of the bureau might see fit to give them. An initial charge to cover cost of printing etc., was made and the funds of the bureau though collected by the secretary of the society are handled separately, this due to the arrangement which makes is non-compulsory on members to join the bureau.

Members were requested to turn in their bills for collection, both good and bad. As the agency progresses it is proposed to furnish each member with a list of those who are not in the habit of hurrying to the doctor with their cash after he has rendered them some good service and after that the individual physician may take his chances with that particular patient. In other words there will be no blacklisting and if a physician wishes to practice for a person who happens to owe a dozen other physicians he is at liberty to do so, but the bureau proposes to keep every one concerned fully advised.

### HEXAMETHYLENAMINE.

Recent observations of opinions with reference to hexamethylenamine in infectious processes generally indicate that this drug has perhaps a wider range of usefulness than is contemplated by the general practitioner.

We find that it is used actively by the surgeon, the internist, the specialist and those having epidemic situations generally to handle.

Great confidence is accorded the drug by surgeons in the prevention of meningitis following skull and brain injuries and by aurists in infections involving the mastoid and middle ear. It has been noted in pneumonia that the complications of pleurisy and otitis media are lessened by the use of this drug in from ten to fifteen grain doses four times daily. It has been shown that hexamethylenamine depends for its virtues on its liberation in the body fluids of formalin, which if true would entitle it to a very wide range of usefulness. While there is considerable discussion as to its value in meningeal infections and it must be used for this purpose in very large doses, doses so large that some hold them to be decidedly irritant and dangerous; yet the preponderance of weight favors its use in such conditions. The dosage for bladder conditions and kidney affections varies from five to ten grains several times daily to one to two hundred grains daily in suspected meningeal infections, these latter doses being considered irritant and possibly productive of cystitis in some instances. Its use in typhoid is a matter of some question, but in malarial infection and convalescence therefrom it is of decided value.

In gonorrhoeal and other bladder and urinary infections it is decidedly effective and probably in this field it may be said to be the most surely effective drug we have.

## PERSONAL AND GENERAL NEWS.

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Dr. Ferdinand Shoemaker of the United States Indian Service, temporarily located in Denver, is now making a detailed study of tuberculosis among the Indians of Oklahoma.

Dr. Loren C. Presson, and Miss Mand Keith of Alva were married at Alva on December 12th. Dr. Presson is surgeon for the M., K. & T. Ry. Co. at Osage and after an extended wedding trip in Texas and probably to the canal zone the couple will return to Osage where they will make their future home.

Dr. B. W. Freer of Nowata is in the Chicago Polyclinic for postgraduate work.

Dr. J. A. Connell of Oklahoma City has removed to Sapulpa.

Dr. Goddard, formerly an interne of St. Anthony's Hospital, Oklahoma City, has located in Mounds.

Dr. A. E. Davenport, Oklahoma City, health officer for Oklahoma County is doing postgraduate work in New York City.

Dr. E. S. Ferguson of Oklahoma City has returned from a visit to his old home in Ontario, Canada.

Dr. J. S. Jacoby of Oklahoma City has located in Fallis.

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## COUNTY SOCIETIES.

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Jackson County Medical Society met in Altus for the annual election of officers December 2nd. The officers elected were S. P. Rawls, president; R. E. Fox, secretary, both of Altus. It was decided to adopt the study course as prescribed by the American Medical Association in addition to clinics and to meet weekly hereafter.

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## MARSHALL COUNTY.

The Marshall County Medical Society announced its program for December 10th which had for its consideration the subject of epidemic meningitis. This program was decided on after a decision of Marshall County physicians that the state would probably have to contend with this disease during the coming months. Dr. John A. Haynie read a paper on "Diagnosis of Meningitis," Dr. T. A. Blaylock on "A Report of Twenty-One Cases of Meningitis in Marshall County," S. P. Winston "The Manner and Modes of Treating Meningitis by Means Other Than Serum," "The Quantity, Time and Mode of Administration of Meningitis Serum," is accredited to W. Lee Davis and J. L. Holland read a paper on "The Prophylaxis and Precautions to be Observed by Physicians and Other Attendants in Handling Cases of Meningitis."

### PONTOTOC COUNTY.

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This County held the banner meeting of its existence on December 2nd. The meeting was unusually good by reason of the fact that the entire day was taken up with well worked out papers and clinics and was attended by many men from other cities who added to the interest of the affair. Dr. L. F. Watson, Oklahoma City, delivered a splendid paper on hemorrhoids" which was illustrated by lantern slides, with especial reference to the use of cocaine as an anesthetic. A banquet was tendered the society by local physicians and the citizens of Ada in the evening. This society has shown a greater growth in numbers and interest than any new society ever organized when the number of physicians of the county is considered.

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### TILLMAN COUNTY MEDICAL SOCIETY.

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Met at Frederick, Okla., November 26, 1912, for its regular monthly session.

An interesting clinic came before the body. The patient was examined and the findings discussed by those present.

Dr. A. B. Fair, Frederick, read a paper on "Chorea" which was highly appreciated.

Drs. C. A. Howell, Loveland and I. A. Briggs, Hollister, were received as members of the County society.

Next meeting will be held at Grandfield, Okla.

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### GRADY COUNTY.

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This society held its annual election December 6th, R. P. Tye, was elected president and Dr. Martha Bledsoe returned as secretary. Arrangements were made for the annual meeting and it was determined to have a banquet at that time.

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### MUSKOGEE COUNTY.

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Meeting of December 9th.—O. C. Klass elected president, A. B. Montgomery, vice president; W. B. Newton, secretary-treasurer; P. P. Nesbitt, censor for three years. Program: Dr. P. P. Nesbitt reported two cases of nephrolithiasis. The committee on collection bureau reported and the report was accepted.

December 23, 1912.—Program: O. C. Klass presented a case with total paralysis of lower extremities following child-birth. Dr. Claude Thompson read a paper on the Treatment of Compound Fractures. Dr. P. P. Nesbitt on behalf of the adjusting committee stated that a contract had been entered into for 90 days, with the privilege of extension, with the firm of Yancey and Powell to represent the society in the matter of collections.



### A TRIP TO EUROPE.

To the Editor:—The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed Travel Study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the localities visited. For those unable to speak the languages of the countries on the Continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, August 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort and plans are now ready for a physicians' travel study tour, leaving New York July 3rd for the most important capitals and health resorts on the European Continent: Paris, Munich, Carlsbad, Brussels, the Hague, Amsterdam, etc., ending with the week of the congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to Richard Kavaec, M. D., 236 East 69th Street, N. Y. City.

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W. B. Saunders Company, medical publishers, are now established in their new building on West Washington Square—an ideal site right in the heart of Philadelphia's new publishing center.

The remarkable success of this house and the rapid growth of their business, with the increased facilities which this growth demanded, necessitated removal to larger quarters. They therefore erected a seven story building, housing all their departments under one roof.

Constructed of reinforced concrete, the building is absolutely fireproof and equipped with every modern aid for the manufacture and distribution of medical books and for the comfort and convenience of their employees.

A cordial invitation is extended the profession to inspect the new plant.

## PITUITRIN IN DIFFICULT PARTURITION.

Every physician who has any considerable obstetrical practice owes it to himself and to his patients to familiarize himself with the oxytocic function of Pituitrin. Here is an agent which, according to reports in the medical journals of the Old World (notably of Germany) — if obstetricians adopt it generally, as now seems likely — is destined to rob childbirth of much of its pain and terror. What shall we say of such an agent that fails but once in over a hundred cases in which it is used? And that is just what happened in Dresden, according to a report of Vogt, of the Royal Gynecological Clinic of that city. Vogt adds: "It was not necessary to have recourse to forceps in a single instance in which Pituitrin was employed."

For the benefit of physicians who are uninformed on the subject, it may be said that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. While in use for a number of years — chiefly, perhaps, as a hemostatic and heart stimulant — it is only of late, comparatively speaking, that its value in uterine inertia has been fully understood. The product is prepared and marketed by Parke, Davis & Co., to whom inquiries should be addressed for further particulars of this remarkable agent. Not very long ago the company issued a pamphlet in which a number of interesting and surprising case reports were published. We understand that copies of this Pituitrin pamphlet are still available and may be obtained upon application to Parke, Davis & Co., at their general offices in Detroit, Michigan.

## THE COLON BACILLUS.

R. T. Morris, New York (Journal A. M. A., March 2), suggests that the colon bacillus may be at the present time the chief regulator of population and cause of the decadence of old age. Bacteria, which formerly caused disastrous epidemics, are practically under control through the progress of preventive medicine, but other bacteria, and especially the one in question, are still carrying on Nature's plans of reducing excessive population. The reason that the activities of this group of bacteria have been so long ignored is that the methods of search for them are of recent development and do not yet cover all the field. While we recognize the destructive activity of the colon bacillus in gangrenous appendicitis, we do not so often trace its activity from this source to distant parts, such as infections of the pylorus or duodenum. From his point of view, the colon bacillus is often the original malefactor in these cases, though the adhesions that it produces in the upper abdomen are often overlooked by the physician. He believes it to be the frequent cause of ulcers of the stomach and duodenum and its activities in gall-stone disease have also been recently recognized. Pancreatic disease and diabetes can also be thus produced, and the proliferation of connective tissue which it causes is, he suggests, also seen in most cases of arteriosclerosis. The toxins it produces also attack the nervous system, and it may thus cause neurasthenia. If we are to assume that the colon bacillus is the cause of arteriosclerosis, we can easily rank this organism with the tubercle bacillus in increasing the death-rate. Experimental injection of the colon bacillus into the circulation has caused spinal disturbances, and Dr. H. G. Harris has found it abundant in the urine of a patient with infantile paralysis. One of these disorders, colon bacillus intoxication and infantile paralysis, may prepare the way for the other. One of the largest groups of cases in which the influence of the colon bacillus is overlooked by clinicians is the infections of the kidneys, and this is specially unfortunate since we can so readily control its growth in the urine by hexamethylen-amin and benzoate of soda, as has been shown by W. H. Thomson. From the rectum it may readily affect the neighboring organs through the urethra and the vagina and be the cause of intractable leukorrhoeas, tubal infection, urinary incontinence and sterility. Its effects are sometimes so remote that it is not suspected, and Morris mentions as an instance a case of chorioiditis cured by operation for appendicitis.

### SEVENTH COUNCILLOR DISTRICT MEETING.

Dr. P. P. Nesbitt, of Muskogee, has called a meeting for the purpose of organizing a medical society for the Seventh Councillor District. Similar societies have been organized in the various Councillor Districts over the state and have resulted in great good to the profession. Every physician residing in the Seventh Councillor District, who belongs to his County Society, will be a member of this Society, and those living outside of the district will be welcome. The program committee have labored hard to have an interesting and instructive program, and we earnestly ask the co-operation of the physicians of this district in helping to make this society a success.

Wake up, Doctor! Take a day off and come to Muskogee on the 27th of January, 1913, and let us have a profitable day together.

Yours fraternally,

J. E. BERCAW, Okmulgee,  
W. A. TOLLESON, Eufaula,  
W. B. NEWTON, Muskogee,  
Committee.

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Next Meeting—Oklahoma City, January 14th.

Address all communications to the Secretary.

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—THE—

*Sophian-Hall-Alexander*

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*Laboratories*

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wish to announce to the medical profession that after several months of preparation it has its Biological preparations ready for distribution and use.

The personnel of this Laboratory comprises the names of Dr. A. Sophian, already well known for his work on Epidemic Meningitis; Mr. E. R. Alexander, for several years his co-worker as serum chemist in the New York Research Laboratory, in immediate charge of the Antitoxin department; and Dr. Frank J. Hall, who has been known here as a clinical pathologist for many years.

We wish the physicians of this western country to feel a personal pride in furthering the interests of this distinctly ethical institution, to the end that we develop here a Laboratory for the production of serums and allied products that will rank with its model, the New York Research Laboratory.

Our Diphtheria Antitoxin, Tetanus Antitoxin and Anti-meningitis Serum represent the last word in quality and appearance. The superiority of our syringes and containers is evidenced by their adoption, with our permission, for use by the City Health Boards of New York City and Philadelphia, the foremost Municipal Health Boards of America. The Oklahoma State Board of Health is also using our products exclusively for distribution in this great state.

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Meningo Vaccine as a preventive against the dreaded Meningitis is prepared in these Laboratories under the personal supervision of Dr. A. Sophian. This dreaded disease is much easier prevented than cured.

Special attention is directed to a faultless technique in the performance of the original Wassermann test. The fee for this test has been reduced to ten dollars. We are prepared to send syringe with full instructions for obtaining blood for the test.


Pasteur Treatment is furnished daily by mail, reaching Oklahoma Doctors in from twelve to twenty-four hours after leaving the laboratories; its freshness being a decided advantage.

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A cordial invitation is extended the profession to visit the Laboratory at 1208 Wyandotte Street, Kansas City, Missouri.

# THE JOURNAL

*of the*



## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, FEBRUARY, 1913

No. 9

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

### FATALITIES DURING AND IMMEDIATELY FOLLOWING LABOR.

DR. L. S. WILLOUR, McAlester, Okla.

The usual causes of sudden death during delivery, or shortly after, are: rupture of the genital canal, pulmonary embolism, acute oedema of the lungs, premature separation of the normally placed placenta, or placenta praevia. Moreover, a woman may die during the puerperium from the effects of any condition which would give rise to a similar outcome under other conditions. \*

It is needless to discuss the symptoms attending the conditions mentioned, as they would be readily recognized. The intense and sudden precordial pains in pulmonary embolus, the symptoms of hemorrhage in other conditions mentioned, are not hard to recognize.

In looking up various authorities on the subject of this paper, I find little reference to shock, and where it is mentioned. It is given but scant attention; but to me it appears as a condition not to be passed lightly. Why, when labor follows a prolonged illness, where the patient's vitality is lowered, the tonicity of all bodily elements below par, could this condition of shock not become fatal? When the

\*Williams' Obstetrics, 2nd Edition, Page 848.

intra-abdominal pressure and blood-pressure are in an instant so markedly lowered, by expulsion of the uterine contents, and the patient, in her weakened condition, unable to regain the equilibrium that nature demands, we must expect and do have fatal results. The amount of shock present in the ordinary uncomplicated labor is very little, but when the patient, from some cause, is in a depleted and debilitated condition, the exertion of labor may cause a sufficient degree of shock to be fatal; there is a vaso-motor paralysis, peripheral stasis, and ultimate blocking of the circulation.

The case I have to report is, as is sometimes the case, a patient who had always been one of the dearest friends of myself and family; and the interest I have felt in the case, and the keen sense of regret at the outcome is that, not only of the professional man, but of the friend.

Mrs. K., age 28, had been married four years, two years ago had premature delivery at six months, from which recovery was uneventful and complete. During the first seven months of this last pregnancy, the patient's condition seemed to be normal in every respect; even the usual gastric disturbances not presenting themselves.

On December 22nd, approximately six weeks before the expected time of the completion of the gestation, I was called, and found the patient with slight fever, coated tongue, and nauseated. Several small doses of calomel were given, followed by seidlitz powder, and the symptoms relieved. No fever being present until December 26th, when there was a decided chill, and high fever, running to 104. At this time, the patient was given a thorough examination, which revealed an enlarged spleen and liver, tongue coated with a thick yellow fur. Examination of urine was negative. Cool bathing was instituted to control the fever. More mercury was administered, and followed by two-grain doses of quinine every three hours. This I know to be a very small dosage of quinine, but it has been impossible for me to convince myself, in spite of the assertion of authorities on therapeutics, that quinine in larger doses will not start uterine contractions. The rise of temperature in this case continued every other day for fourteen days, at no time did the temperature become normal, nausea and vomiting being in direct proportion to the temperature. After three days of treatment with small doses of quinine, arsenic was given until symptoms of its physiological action presented themselves; still the temperature every other day would rise to 102 to 103, until January 11th, fourteen days after the initial chill. Again examination of the urine was negative, and an examination of the blood showed the estivo-autumnal parasites in abundance, this accounting for the remittent character of the fever. The patient's strength was gradually decreasing, and after advising with Dr. McCarley, it was decided to

give some larger doses of quinine. Five grains were given every two hours for five doses, the same dose being continued every four hours until forty grains were given in twenty-four hours. The result of this thorough cinchonization was very good, as from this time until delivery six days later, the temperature ranged from 99 to 100, only going to 100 twice in the six days.

On the morning of January 18th, I was called and found the patient in labor. Examination showed a normal presentation, the uterine contractions regular although somewhat weak. After about fourteen hours of labor, the head was in the hollow of the sacrum, and in order to conserve the strength of the patient, forceps were applied, and during one contraction, the head was lifted, and after removal of the forceps, was delivered over the perineum unassisted. There was no laceration of the perineum or cervix, the placenta was delivered in about thirty minutes. Chloroform had been given by the nurse in small quantities during the last hour and a half of labor. It was never pushed to any marked degree of anaesthesia, and at no time was the pulse above 90.

About an hour and a half after delivery, I left the patient in good condition, she answering when questioned that she was having such a good rest. The amount of flow was normal, and I felt very much relieved to think that both mother and baby were doing well, after so long and tedious an illness.

About two hours after delivery, I was called by the nurse and informed that the breathing was rather hard and rapid; she was advised to give plenty of water, and upon inquiry a half hour later, I was informed that the patient was resting well. She slept from this time for about two hours, when the rapid breathing again developed, and the nurse found the pulse very weak. I was called at once, reaching the bedside in about ten minutes, and found the patient with no radial pulse, presenting marked symptoms of air-hunger, respiration 42, and complaining of dimming vision. The uterus was contracted to about the size and consistency of a croquet-ball, there was no dullness in the flanks or abdomen. She was given one-fiftieth of a grain of nitro-glycerine hypodermically, and Dr. McCarley was called, who arrived in a few minutes. We then gave five minims of 1-1000 adrenalin chloride solution in a syringe of normal salt, and started a hypodermoclysis. In spite of our efforts, there was no response. We repeated the dose of nitro-glycerine, but the patient died in about forty-five minutes after the first alarming symptoms presented themselves.

If I have made any mistake in the treatment of this case, I hope to be told of it in the discussion and if this fatality was not due to shock, what was it?



## \*DISCUSSION.

DR. TORRENCE, Okmulgee, Okla.

I may be a crank on one particular thing. I will read a paper this afternoon and when I read it I wish to say I desire to base it on this particular case as helping me out on the statement of facts. It looks to me like this is simply a case of shock. I do not want to talk any more about it, for if I do I will spoil my paper.

DR. OLDHAM, Muskogee.

Just a few remarks on this: In my opinion, chloroform, used as much as it is in labor and at improper times, gives us a great many cases of chloroform poisoning to the mother and infant due to such anaesthetic. In my opinion chloroform should not be given to the patient until the doctor is thoroughly convinced he will have no interference with a rapid delivery. Either when that point is determined or you have determined on the use of the forceps. In the prolonged use of chloroform we very often have a new baby to die from supposed compression which is nothing but chloroform poisoning. We attribute it to delayed labor, long compression, and so forth, but in my opinion we should not have long compression of a patient or retention in the pelvis long enough to give these symptoms; and often we give way to our sympathies and in order to quiet the mother we begin the use of chloroform with the resulting inertia and out of an ordinary delivery we produce a long, tedious labor resulting in chloroform poisoning.

DR. BOYLE, Enid.

I want to add a very few words in regard to this death under discussion. In the first place the paper was very clear and together with the discussion we have had covered the case so thoroughly that little is to be said. Personally, I am of the opinion that this was a case of shock pure and simple, and I am not going to give the reasons—that has already been discussed. It might not have been just the procedure to have been used, but I would not say that it had anything to do with the death of this woman, and I do not believe he could lay that to his soul that he killed her, for he did not. I believe there was plenty of cause for the death without that, and in regard to the chloroform I was taught of course in the East, in Philadelphia, to use ether in labor, but when I came West they had been using chloroform and I have used it since then most of the time without having had a death. I had one sudden death in labor—that is, I was called to see a woman who had died. She was a large, heavy Irish woman. It was two hours after labor that I got there and the husband and woman there told me she had an apparently normal labor and within five minutes said, "Oh, my, I feel so queer." And when they got to the bed she was dead. When I got

(\* Unfortunately, part of the discussion on this paper was not reported.—Ed.)

there I removed the placenta. I think it was rupture of the heart. I agree with the doctor from Okmulgee in regard to the mistake in use of chloroform, but it seems to me the time this woman died, within six hours of labor, and of course the doctors agree it was a case of shock, and I do not believe anything we know of could have been done to prevent it. If there is I would like to know it.

DR. SMITH, Guthrie.

I want to say that the description of a case of this kind brings to me the feeling that I always entertain when I enter the room in this practice. I do not think I ever entered the room to deliver a woman with child without wondering whether when I go forth will the family be gladdened by an addition to it, or will there be cast a shadow because of the death of the baby or a deeper shadow by the death of mother and child. I do not think we can ever tell what the result will be. I do not think this death was caused by any physician, but unfortunately we do not know what did cause her death. I do not think any one here is prepared to say. In regard to what was done I don't think I would have used the nitro-glycerine.

DR. WILLOUR.

I am thankful for the discussion this paper has received. Dr. Long's enumeration of symptoms makes it more plain that in this case of shock it was not a case of pulmonary embolus. There was not the first symptoms of that. It was vaso-motor paralysis.

In regard to the anaesthetic, I never start that until the head is against the perineum. I have attended some women in labor who have had doctors wait on them who did use the chloroform, and if you want to continue to treat them you have to do it. I have never lost a child that way. It may be there are chloroform poisonings from administering anaesthetics, but I have never had the trouble in giving chloroform to patients.

I want to thank you for the discussion of the matter and will say in regard to the mistake in using the nitro-glycerine I am sorry I gave it, though I think the result would have been the same.

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## A GENERAL PRACTITIONER AS AN OBSTETRICIAN AND GYNECOLOGIST.

J. B. SMITH, Durant, Okla.

*Mr. Chairman and Gentlemen:*

In presenting for your consideration today, a paper on obstetrics and gynecology, I do not expect to say anything new.

My remarks will be more particularly with reference to the obstetrical work that the general practitioner comes in contact, especially to that particular period from the time conception takes place until parturition.

I believe the amount of literature is less in proportion during this period than any classification, that the general practitioner as an obstetrician has to deal.

We find during all ages that some one has been designated as a midwife. The Jews, Egyptians, and Greeks, had women for this particular work. It is said that the mother of Socrates was a midwife. Plato explains the duties of these midwives. Hippocrates gave considerable attention to midwifery and describes the operation of turning the child in abnormal labors.

In the early days Caesarian section was performed after the death of the mother. There was a royal law authorizing this procedure when necessary.

With but little advancement, time drifted along until 1819, and Naegele gave a clear and correct explanation of the entire mechanism of labor, and he may be considered the founder of the modern science of obstetrics.

I mention this little amount of history to show how little three generations ago knew about obstetrics. Since that time obstetrics has kept pace with medicine and surgery.

In studying the effects of pregnancy we have a number of new conditions presenting themselves for our consideration—very often serious conditions.

The whole apparatus of the human makeup has to undergo certain physiological changes, a variety of new conditions present themselves. Very conspicuous is the quality and quantity of blood, with additional work thrown upon the kidneys, heart and lungs, with the reflex derangement of the nervous and digestive system.

We so often neglect the little advice necessary in the beginning of pregnancy. Doctors fall into the habit of looking at labor as fixed by some natural law, and depend upon nature with her wonderful mechanism of safe-guarding, believing that some greater power than we now possess, arranged the plan of impregnation, of its subsequent fulfillment, and finally the climax.

We sometimes forget that there are certain hygienic rules that should be well followed and a physician who fails to do this will have his regrets.

A good definition for obstetrics, is the things we are supposed to do and know. Its object is the management of women and her offspring during pregnancy, labor, and the puerperal state. In its wider scope it embraces a knowledge of the structure and functions of the reproductive organs and their relation to the general system.

During pregnancy we have increased elimination of carbonic gas, by the lungs, necessarily there must be an increased consumption of oxygen; consequently we can see at once the necessity of an abund-

ance of pure, fresh air. Close, ill ventilated rooms, crowded assemblages, confinement indoors, are to be avoided.

A good appetite is a safeguard against most discomforts of pregnancy. I will avoid saying anything about vomiting as most of the good remedies fail and often the poor ones succeed, however, a few simple instructions will help almost all cases. Warn your patient against the frying-pan and all kinds of pastry, especially look after constipation. A great many times a little advice is all that is needed.

We so often give advice in a careless way, not going into the little details that are necessary to be of any service to the patient. It would be a good rule to advise your patient about all their ailments in a business like and scientific way. I think, for instance, a hot vaginal douche is a bad procedure unless properly done, and excessive vaginal discharge can be alleviated by a hot vaginal douche without danger to the patient when cautiously administered. To do this properly the recumbent position is necessary, use a fountain syringe and a warm saline solution, inject it slow. This should be done first even if you should want to use some antiseptic wash. I refer now to all cases where a douche is indicated.

Varicose veins, heartburn, faceache, headache, and insomnia all need attention. Do not overlook the seemingly little thing and perhaps you will not have the bad complication.

How many of you gentlemen have had serious trouble with your labor cases, that come to you for advice from the beginning? I am sure you have had cases where you expect trouble, but you did not. Was it a happen so? No, you had been on the alert—you had been paving the way.

I believe I am safe in saying that the experience of most of you with your bad cases have been the ones you have been sent for in a hurry, say 10 or 15 miles, the first time you have been notified such a case existed; the picture now is implanted in many of your minds; no use for me to draw one. I want you to draw another picture, provided the proper steps had been taken at the proper time—maybe a little advice, some precautionary measure, some medical attention, the picture changes, the scene is different.

The responsibility rests on no one and should not be felt more acutely by any one practicing medicine than the man who practices obstetrics.

The surgeon can say he killed his patient scientifically, the gynecologist can say he killed his covering up the mistakes of the obstetrician, but the man who practices obstetrics has to fess up, did not recognize the condition, or did not call extra help in time, or was not equipped to meet the emergency.

Gentlemen, who does the obstetrics of Oklahoma today. Is it some old lady, or some expert who has had the special training, or the



suggestions of the women in the neighborhood (and sometimes it seems it is? You gentlemen know it is the general practitioner.

If a general practitioner is not an obstetrician then who would you designate as one? O, you may not like to do the work but you must do it if you practice in Oklahoma, especially if you do country practice, and the best way to learn to admire the work is to study each and every case from the beginning to the ending.

No two cases present the same symptoms or conditions. You always have an individual as well as a condition to try your ability as a strategist.

When I am asked to wait on a case of labor, and I happen to not know the family I ask about the following questions: If this is the first case, how many labors, if there has been any serious complications with any of the labors, if there is any abnormal conditions now, such as dizziness and extra amount of edema, if the kidneys are doing their function, etc.

This has a two fold object; first you familiarize yourself with the past history and also it gives you a chance to give some advice, you can request to be notified of any condition that may not seem normal or usual; second, you gain the confidence of the family by the interest you manifest.

In dealing with pregnancy as an obstetrician, we have a two-fold object in view: the physiological condition as presented by conception. The complications and sequences of conception in the relation to mother and child. I want to call your attention to some of these complications. "Shute Therapeutic Gazette, September, 1911, gives us about the following rules: 'Albuminuric retinitis may exist even months without pregnant women complaining from vision, retinitis can exist for some time independently of all as well as in association with symptoms of kidney disease, also independently of, as well as in association with albuminuria.' "

"The presence of retinal inflammation indicates a far advanced condition of the toxemia of pregnancy, or of that manifestation of toxemia known as kidney of pregnancy."

As long as albuminuric retinitis exists there is danger of vision being irretrievably ruined at any moment and in any month.

The ophthalmoscope is the only means by which the early toxemia can be detected, also it is the only means by which we may know that albuminuric retinitis even exists.

Urinalysis may be negative, still you have an increased arterial tension as indicated by an abnormally accentuated second sound of the heart, associated with a tense and wiry pulse or as indicated by the sphygmomanometer (blood pressure) which is a simple procedure and according to the literature on the subject is very correct.

First contributed a paper on this subject. The following are his conclusions: "The normal blood pressure in normal non-pregnant women will be on an average 112 M M." "In healthy pregnant women about 118 M M's."

"In toxemia in the first half of pregnancy blood pressure is invariably low, in the last half associated with albuminuria and eclampsia is invariably high. A high blood pressure in the last half of pregnancy may be the first sign of toxemia."

"In eclampsia the pressure is high 48 hours after delivery and does not reach normal say from 118 to 124, from five to seven days as far as possible to lay down any rule in these cases the author states that blood pressure below 125 could be disregarded, but a pressure from 125 to 150 needs careful watching and, moderate eliminative treatment, about 150 active treatment, and should it go very much higher, premature labor."

From the above rule it seems that the blood pressure can be of much needed service in the diagnosis of some of the complications of pregnancy, being very easy understood and easy to carry around will make a valued addition to us who practice obstetrics. I believe it is the duty of us all to familiarize ourselves with the use of the blood pressure apparatus, also the use of ophthalmoscope, at least we should know the necessity and be able to have the eyes of the pregnant woman examined.

I wish now, gentlemen, to call your attention to one other complication and that is prolonged pregnancy. Now gentlemen, you may think this hypothetical. How many times have you had your patients to tell you they have gone ten (and one woman told me months ago she had gone eleven months?) I know how easy it is to make a mistake of this kind, but one thing I do know usually when they give you the date and you figure by the rule and you find twenty or thirty days overtime you can figure if this is true you will have a hard and prolonged labor, which is dangerous to both child and mother, especially if there is any heart or kidney complications. Won't somebody come to our rescue, give us a new rule or some new sign whereby we may know parturition should take place? The greatest danger after the time limit is the growth of the child in utero. A. H. Wright of Toronto, in the *Interstate Medical Journal* of October, 1911, repeats the recommendation of the *American Journal of Obstetrics*: "To induce all labors at term," this may never be extensively done at least until someone finds some new sign that is more exact than any we now possess. With our methods of cleanliness at this day I believe in dangerous complication to the mother, we should empty the uterus at any time after 210 or 220 days, I believe we would be justifiable at 270 days with no complication to empty the uterus.

Among the regrets of a general practitioner (obstetrician) is the eyes of the child as well as the mothers. One thing we all know who practice medicine, that gonorrhea is not confined to any particular class, the single as well as the married people have gonorrhoea, the poor as well as the rich, and in the city as well as in the country, it seems it is more prevalent now than 20 years ago, we who practice obstetrics necessarily have to be an eye doctor, we have Ophthalmia Neonatorum to deal with and if we do our duty further specialism is needed. Ours is the preventative treatment.

Blennorrhoea of the new born belongs amongst the diseases of frequent occurrence. The majority of pregnant women have catarrh of the vagina with a mucus or purulent discharge. Of course most of the cases are benign, in individual cases the distinction between benign and infectious is difficult, any excessive discharge should have the benefit of the doubt and prophylactic treatment inaugurated. In the asylum of Germany and Austria for the blind blennorrhoea forms more than one-third of the whole number. It is claimed that more than one-tenth of all blind persons are made so in this way, if we could obliterate blennorrhoea neonatorum by prophylaxis there would be in Europe alone 30,000 less blind persons. Crede has proven by statistics that with the proper care the per cent in the Leipsic lying in asylum was reduced from 10.08 per cent to less than .2 of 1 per cent; many others had similar reports.

Infection can however take place even earlier. Children have been known to be born with a blennorrhoea already fully developed, in fact, with the cornea already destroyed. I presume this is very rare. I have never seen such a case.

Now you general practitioners who I claim are the obstetricians of Oklahoma, don't get frightened if you fail to use your prophylactics before partuition, and in three or four days you have a bad case of purulent ophthalmia.

Get busy. You may live too far away to get an eye specialist or your patient may not be financially fixed to send for one. With the instructions of the late works carried out you can cure your case and do it just as well as any specialist under similar conditions.

As this paper is getting decidedly too lengthy, I will say but little on the subject of gynecology.

As a special and distinct branch of medicine gynecology is comparatively new. Not many years ago all that was known or done in this line belonged to the province of general medicine.

As general practitioners we have to deal with them all—positions of the uterus, the application of remedies to the cervix and the uterine canal.

The growth of gynecology has been rapid and marvelous, it is to the illustrious Sims that gynecologists can look to the founder.

As general practitioners we can be very good gynecologists. We must recognize the conditions and be able to determine when surgical interference is necessary as it is my opinion a gynecologist is and should be an abdominal surgeon.

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### DISCUSSION.

DR. WINNIE M. SANGER, Oklahoma City.

I enjoyed that paper, and find it is along the line of my work. He was talking about the time of parturition. I had a case I delivered Sunday that I am satisfied had gone two hundred and ninety-five days. At any rate I had been engaged since the 12th of July on this case.

DR. BERRY, Okmulgee.

There is no reason why the country obstetrician could not be just as competent as the man in the city. He can be just as clean and can wear rubber gloves. I think there ought to be a law passed that would not allow a man to wait on a woman without rubber gloves. The country obstetrician can learn to use a pair of forceps as well as the city man. As to making a gynecologist he cannot do some things as good as the man that does work along that line.

DR. HARTFORD, Oklahoma City.

The point brought out in regard to blood pressure. You will notice the insurance companies are laying stress on that and especially they require an examination and report in especially high policies—they require it in policies of \$50,000.00. I was glad to hear the discussion of toxemia in pregnancy. There is one thing we have not done in obstetrical work: We have not been educated to the fact that pregnancy is dangerous, a dangerous condition to the woman, not owing to her present condition, but to what may follow. While in this line it was my practice to take care of many an obstetrical case I had never seen before or afterwards.

DR. MESSENBAUGH, Oklahoma City.

In about fifty per cent of my people I have never seen the woman before the case and a great many times never afterwards. They seem to think that every case of confinement ought to do right and when it does not they are not well pleased. The Lord has to take care of the woman and if He does not they would die. It seems like the Lord is on our side. In regard to what is going to happen—if any one asks me what they ought to do, I tell them they either do not want any one or the best doctor they can get, for whenever you go into a case like that you do not know what is going to happen. When I first started in this business I found out I knew lots about it, but now after lots of experience I wait until after I get through before I know anything. I think in all those cases the eyes ought



to be taken care of especially. We tell the mother the child's eyes should be open. They have the impression that if the child keeps its eyes closed it is because the light hurts it. The light does not keep the child's eyes closed unless they are sore. They keep the room dark and think the light makes the eyes sore. I always instruct the mother to every hour or so pull the baby's lashes apart so they will not stick together and then, even if sore or infected, it will be giving more chance to see any secretion or let it escape.

DR. SMITH.

My object in writing the paper was to bring out some discussion and I believe in the saying if you want to muddy the river you do not stir it up near the ocean, but where it starts. There has been less said about these patients than about any other. They are always talking about something else, and I hardly ever get much literature on the subject I talked on today. There is too much ignorance along this line. We should impress on the minds of people the necessity of these things. I always have a horror when waiting on a case of labor, for I am always wondering how I am going to get away, and I always feel good when I get away and am through with the case and relieved of the responsibility.

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### **GASTRO-INTESTINAL DISTURBANCES COMPLICATING PREGNANCY.**

C. D. BLACHLY, B. S. M. D., Norman, Okla.

Pregnancy from a biological standpoint, when the welfare of the race is taken into consideration falls readily into the class of physiological processes. Viewed from the standpoint of the individual whose duty calls her to bear children for the perpetuation of the race it at once, in a vast majority of cases takes on a different appearance, and, to the mother, is pathological. Some one has fittingly compared the developing fetus to a parasite growing at the expense of the mother. So viewed it then becomes proper to speak of pathological conditions concurrent with pregnancy as "Complications," pregnancy being considered the primary pathological condition. The difficulties of diagnosis and treatment of diseased processes are liable to vary almost directly as the square of the number of pathological conditions present so that the physician's greatest diagnostic skill and therapeutic judgment is commanded in all cases where two or more serious conditions are threatening the welfare of his patient. For the conservation of time many subjects although important will be neglected in this paper.

In a great majority of gastro-intestinal disturbances the key note to their successful treatment is an early recognition of the true nature of the pathological condition present. Early diagnosis will often save nine, ten, or an endless number of stitches later.

In gastro-intestinal complications of pregnancy we have many disturbances that are simply concurrent with the pregnancy and are found no more frequently than in persons who are not pregnant. Other processes depend wholly or partly upon the pregnancy for their etiology. Starting with the affections that are simply concurrent we will mention some of the more common ones. First we may consider acute gastritis. As this is usually due to some indiscretion of diet or to ingesting some toxic material, from the history and symptoms the diagnosis is comparatively easy. The treatment is the same as in uncomplicated cases. Chronic gastritis offers greater difficulties of diagnosis. In cases of suspected chronic gastritis the patient should be given thorough physical and pathological examination to disprove or establish the diagnosis.

Ordinarily the treatment is the same as in other cases of chronic gastritis.

Hamatemesis is rarely met with. In these cases care should be taken to determine if the original source of blood is from the stomach.

Treatment varies with the causes, which are many. Atony and dilatation of the stomach can usually be determined by the ordinary methods. We must not lose sight of the fact that the symptoms of these conditions may be vague and not point directly to the stomach.

Of the functional and nervous diseases of the stomach our patients are subject to them the same as they are without pregnancy being present. It follows that we may have a purely nervous vomiting, or a reflex vomiting.

Of the intestinal diseases concurrent with pregnancy we will pass over the acute indigestions and intoxications, for what will apply to the gastric troubles will also apply to them.

Typhoid is one of the most formidable complications that the physician meets. Of the diagnosis and treatment we will not speak. It is the writer's opinion that all pregnant women should be given the protection of typho-bacterin as soon as pregnancy begins. If any person needs special protection against this most common of all continued fevers it is the pregnant woman. Fully sixty-five percent of these cases miscarry and shock and exhaustion makes the mortality very high. Furthermore the children of typhoid mothers are liable to fall below normal both physically and mentally. Preventive inoculation for typhoid has slight or no untoward symptoms in most cases; the cost of bacterins is small; and the advantage gained, great. Probably if the initial dose were to be considerably reduced from what is now commonly used and the number of doses likewise increased all untoward symptoms could be done away with.

Another serious complication of pregnancy is appendicitis. Early in pregnancy this may be hard to differentiate from ectopic gesta-

tion. In the later months there is little trouble in this respect. These cases are very serious, the mortality being nearly fifty per cent. In a purulent case operation is the only treatment but should not be resorted to until complete physical and pathological methods have been used to establish the diagnosis.

Of the conditions which depend to a greater or lesser extent upon the state of pregnancy for the etiological factor we will mention constipation, haemorrhoids, and the vomitings of pregnancy.

Constipation may be produced by mechanical pressure in the later months. The treatment is the same used in other cases of constipation except that active purging should be avoided. Haemorrhoids are formed or aggravated by the pressure on the return flow of blood by the uterus. The treatment during pregnancy should not be surgical.

Vomiting in pregnancy is divided by many of our writers into physiological, aggravated and pernicious, each class differing from the other in duration and intensity. We believe the classification given by others, of simple, aggravated and pernicious to be much better as speaking of physiological vomiting is too much like speaking of a good vice. As the three types vary only in degree and duration we will not consider each one separately but rather speculate as to what is the probable cause, what the greatest factor influencing the course, and what the most reasonable line of treatment. As time will not permit our going into the details of all the theories seeking to explain the cause we will take up but one, the theory, which, in the writer's opinion, best explains the symptoms presented.

That is the theory of the production of chemical bodies by the growing foetal structures which finds their way into the maternal circulation and have in some way a more or less specific stimulating action upon the centers which produce nausea and vomiting. It has already been proved by experiment that fetal tissue, placenta, and amniotic fluid may cause anaphylaxis in their own species. Since the development of Wright's opsonic theory much experimenting has been done with serums from different sources and it is found that in many cases one serum shows a marked reaction against another. It is also a well known fact that an animal can be immunized against a serum which is toxic to it if the dose of such a serum is not so large as to destroy the animal's life before such immunization takes place.

About fifty per cent of cases of pregnancy show more or less disturbances manifested by nausea and vomiting. If our memory serves us right this percentage is about the same as that of human serums which show destructive action the one against the other. Now with this theory of toxic bodies in mind we can readily see how this percentage of cases will show symptoms until either the mother

reacts against these bodies or the fetal cells producing them change the nature of their output.

Now as to treatment: Of the therapeutic measures which have been used in this condition you will recall their name is legion. There are probably as many of them as have ever been used in the treatment of typhoid and pneumonia, diseases we now know to be self limited. Just as the therapeutic change made immediately preceding the crisis in pneumonia has many times been given the full credit for curing the disease so we fear that this has often been the case in vomiting. The mother may have reacted about the same time the remedy was changed. However, the many remedies recommended in our works of medicines are not without their value as most of them tend to conserving the patient's strength and quieting the affected centers. Therefore, rest in bed, light diet, avoidance of anything that will excite the nervous system, rectal alimentation, local anaesthetics, and general sedatives all may have their value. If these measures are unsuccessful and the patient is losing ground operative interference is indicated, and should not only be suggested but demanded by the physician before the patient's strength is too far exhausted.

#### DISCUSSION.

DR. ELLISON, Oklahoma City.

I want to say this: We must remember we are living in a highly civilized state and I do not know whether men that have been working among the less civilized people find this is the case, but there are so many things to take into consideration and so very few people that are absolutely healthful, though they may appear so without close examination that we must be very careful not to overlook something. Constipation is probably one of the causes of vomiting in pregnancy taking place. The theory is claimed by some that vomiting to some extent is due to the reflex pressure symptoms by the uterus becoming larger, and after six or eight weeks vomiting stops the uterus has raised up above the pelvis and has more room. This seems to be a very high strung theory for if the reflexes cause the vomiting why should it not continue right along? You may have the toxemia produced by the congestion. Then why does it not go on after six or eight weeks? There is such a thing as getting immune from toxemia; you can get it by injecting serum. And there is such a thing as a person manufacturing their own toxemia and thereby stopping the toxin.

DR. MAYBERRY, Enid.

I enjoyed the paper, but there is one thing I feel like I am sore about and that is these bacterins. I feel like we are imposed on by



the chemical houses in putting out bacterins. I have given a great many of these and never had any results I know of. I never cured a case by them, and the way I feel now I would not want to give them in pregnancy unless in imminent danger. I bought some cancer cure from Squibbs for I had some confidence in them. It is a fact that chemical houses now put out something and recommend it for some special thing and there are enough of us going to buy it to make the company rich. I suppose the Squibbs company sold \$2,000,000.00 worth of that cancer cure, and I am a little sore and believe they ought to experiment a little farther on dogs

DR. BERRY, Okmulgee.

I am a little sore along that line myself. I see so many statements about each of them I hardly know where to lay my hands. I have a woman I am treating now, taking care of now, and she was vomiting at first nearly every day and I gave her ingluvin and everything else that had been recommended and got no results. I would give this because someone said he got results, and so on, and she kept on vomiting and finally I quit giving medicine and corrected the constipation and she got a little better and about a week ago I called and she said: "Yesterday I thought I was getting better and I got on the train and went to Muskogee and went over to Fort Gibson all day and came in after midnight." I said, "You have been up over twenty-four hours and you had better go to bed"—she had came up town to see me, instead of my going to see her—and she had a little business she had to attend to and she went home about eleven o'clock and went to bed and stayed in bed all afternoon and that night and I told her to eat breakfast next morning in bed. She ate breakfast laying in bed and got up about eleven o'clock and came up town feeling fine and has never vomited since. What did it I do not know, but this it seems to me knocks all this toxin business in the head, for I did not do anything to get rid of the toxin, but that went. Getting back to the present matter, I have three children in my home and my wife has been sick all previous to confinement and I have never had anything to relieve her and she is always in fine health otherwise. What is it? I do not believe it is toxin in the blood. I believe it is something else—but I would not say what it is. I have seen them vomit until they die. I remember a case where the woman died the next day after I saw her. Dr. Robertson and I had a case in his country that would have died if we had not terminated pregnancy. Terminate it when you see you cannot do anything with it. We saved one woman that way and the other could have been saved if pregnancy had been terminated at the proper time.

DR. ELLISON, Oklahoma City.

I want to correct Dr. Mayberry for kind of stepping on my

almost personal foot. I am great for bacterins. We jump at conclusions too much and the word of fakers. If we are going to take their word you will buy every kind of medicine. You never saw a man representing any kind of drug house but he had a cure for everything on earth. He will tell you to give that medicine and it will cure the trouble. He has got medicine that will cure everything and anything, and it is the same way with bacterins. The only thing you can do is to use your judgment. The serum used in cerebro-spinal meningitis is a good thing. They say it has not been tried, but they are still trying it. You take that used for typhoid and that has been tried, I think, long enough. They have used that in the German and English armies and in the United States army. They have a large per cent of them immunized, and that is not enough. They had a large body of soldiers around Austin, Texas, and while they had a great many cases in the city and the soldiers mingled with the people still they did not get the typhoid.

DR. BALLARD, Oklahoma City.

There is one point that has not been touched on in this discussion in regard to vomiting in pregnancy, and that is vomiting in pregnancy as relieved by dilating the cervix. The conditions there seems to be a cause of vomiting. And I think it is one of the things we ought to look after and examine

DR. BLACHLY, Norman, Okla.

I enjoyed the discussion. In regard to bacterins, I will tell you what I think of that. I think the theory is right. Every advance we have made has been made through getting the theory and working it out and the theory of bacterins is correct. Not only that but the work that has been done to prove the theory shows it ought to be correct. Take an army like that in Texas recently and consider that they had no typhoid fever where ordinarily typhoid would be the most prevalent disease and that shows something is back of it, for conditions were no better in Texas than anywhere else. Not only that but the British and German armies have been proved. We ought not to sit back because this has not been fully tried out. I know that it is good and that the theory on which it is based is excellent and if we take that as a standard we will not go far wrong in the use of newly discovered remedies. We do not note the literature on these things and we find that under certain conditions they may possibly have untoward symptoms, but we have eighteen thousand cases in this country to judge from and we are getting good results with little or no bad results and you can count on this kind of thing a little bit. We have cases of the kind the doctor mentioned where his medicine did no good and then after that the patient got better. What do we attribute these cases to? To the fact that the body has rested and has produced cells that have overcome

the toxemia and that the body is able to conquer them. It might have been so in this case. It might have been the reaction on the part of the mother that caused the change.

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### UTERINE REFLEXES.

By L. B. TORRANCE, M. D., Okmulgee, Okla.

In the short period of time in which I have been engaged in general country practice there is one point to which my observation has been, and is being more constantly directed; that is the train of symptoms following pathological conditions of the uterus which I shall term "Uterine Reflexes." Under various heads this subject has been discussed by medical men for generations, the opinions and deductions being as numerous as the chroniclers of the various phenomena. The field is so wide that volumes might be written on the subject to record the opinion of the writers.

It is probable that any medical man, studying and observing a particular organ or organs, becomes more or less opinionated, and provided he is a close observer, and level headed, studying the organs embryologically, histologically and physiologically, with particular attention to the blood and nerve supply, he is able to interpret a great many symptoms far removed from the organ involved, which to him are pathognomic, while to a less careful observer they are adventitious and have no special significance.

How many times has "malaria," "lagrippe," and that time honored cloak "biliousness" come to our rescue to shield us from, "I don't know"?

When we consider the blood supply of the uterus we find it is entirely systemic, the vessels, both arteries and veins being very tortuous in their course and capable of containing a great deal more than the normal amount of blood.

The next consideration is the musculature of the uterus, which is composed of involuntary tissue, shown by the microscope to consist of long muscle cells, fusiform in shape and arranged in parallel rows, the rows arranged in bundles and the bundles extending in various directions, and in the nucleus of the cells the ending of a sympathetic nerve.

The last and probably the greatest consideration is the nerve supply of the uterus and adnexa; the nerves being both cerebro-spinal and sympathetic.

The cerebro-spinal are from the third and fourth sacral, the sympathetic from the hypogastric plexus.

We will take up the sympathetic system first, and in so doing will follow Holden's anatomy.

The sympathetic system like the cerebro-spinal axis is double,

consisting of a ganglionic cord on each side extending the entire length of the vertebral column, the numerous nerve fibres, both communicating, by which they anastomose with the cerebro-spinal axis, and distributory, by which the blood vessels and viscera are supplied.

Branches of the ganglionic cords ascend through the carotid canal to communicate with the third, fourth, fifth and sixth cranial nerves and with each through the ganglion of ribs; they also communicate below in the ganglion impar, located in front of the coccyx.

Three important plexuses are given off, cardiac, solar, and hypogastric. The cranial ganglia which are connected with the fifth nerve gives off the otic, ophthalmic, sphenopalatine, and submaxillary, each of which have three roots, motor, sensory, and sympathetic.

The lumbar ganglia lie along the inner margin of the psoas muscle communicating above and below with other ganglia, as well as with the spinal nerves, and give off internal branches which form the hypogastric plexus.

The sacral ganglia are internal to the anterior sacral foramina and unite below and in front of the coccyx forming the ganglion impar.

The solar plexus consist of ganglia, and a net work of nerve branches, formed chiefly from the two great splanchnic nerves and branches from the right pneumogastric, being situated between the aorta and crura of the diaphragm and the stomach, surrounding the superior mesenteric artery and the coelic axis; its ganglia are two crescentric ganglionic masses called the semilunar ganglia, and are the largest in the body.

From the solar plexus and semilunar ganglion are given off, as plexuses the coelic, gastric, hepatic, splenic, phrenic, suprarenal, renal, aortic, superior and inferior mesenteric and ovarian.

The hypogastric plexus is below the bifurcation of the aorta, it divides into two parts which, with branches from the sacral ganglia and nerves becomes the pelvic plexus.

The pelvic plexus on each side give off the following plexuses, uterine, vaginal, vesical, inferior haemorrhoidal. I have taken up the sympathetic system at length to show the great opportunities for reflex pain, and as I see it, to show that visceral reflexes are more common from pathological conditions of the musculature and endometrium of the corpus uteri, than from displacements of the organ.

Very briefly I will take up the five sacral nerves which divide into anterior and posterior nerves, the four upper sacral nerves with the fifth lumbar and a filament from the fourth form the sacral



plexus the branches of which supply the genital organs of both sexes.

Pain is caused by stimulation of a nerve fibre, let the stimulation be what it may, either a denudation, a stretching, or a poisoning by carbon dioxide, caused by a stasis of blood.

Three things are necessary for a reflex pain, an afferent nerve fibre, a transfer center, and an efferent nerve fibre. This being true it can readily be seen how a stimulation of the sympathetic nerves of the uterus or adnexa would send a shock by way of the hypogastric and solar plexuses, affecting the diaphragmatic plexus, manifested by a catching of the breath, then passing to the ganglionic cords by way of the splanchnic from the ganglionic cords the impulse is carried to the pulmonary, cardiac, pharyngeal, and other plexuses thus causing "asthma," "heart trouble," "dyspepsia," etc.

If the shock however traveled through the sacral nerves up the spinal cord to the cerebrum we would, probably have an entirely different train of reflexes, insanity, epilepsy, hysteria, occipital headache, tic, and other cerebro-spinal disturbances.

It is a fact well known to gynecologists and neurologists that oftentimes the repair of a laceration of the cervix or perineum produces a marked change for the better in the mental condition of insane women, thus showing that their mental condition was due primarily to a traumatism of the nerve filaments supplying the cervix and perineum. That vague train of symptoms called hysteria may in my opinion be caused many times by an excitation of either sets of nerves and the location of the lesion may be very difficult.

Now to return to the anatomical structure of the uterus, or rather to the muscular layer of the same, we find that the blood supply is very rich, that the muscle is supplied only by the sympathetic nerves: hence any stasis of blood in the arteries or veins would by virtue of the excess of carbon dioxide, or by the hypertrophy of the muscle cells stimulate the sympathetic system alone.

There are two points which may arise from these pathological conditions:

First, malposition of the uterus by stretching the third and fourth sacral nerves, or traumatism to the filaments of the same would be more apt to cause cerebro-spinal reflexes mentioned before.

Second, pathological conditions of the musculature and endometrium of the corpus uteri would produce visceral reflexes.

In conclusion, do not think that I am one of those men with one idea, who think that all the ills to which woman is heir are due to uterine troubles, but in those cases of "asthma", "dyspepsia", "heart trouble", etc., in which no lesion of the organ can be demon-

strated, before dosing empirically, make a thorough examination of the pelvic viscera and correct errors found, in the meantime watch with gratification the disappearance of the troublesome symptoms which have not been amenable to your former treatment.

## DISCUSSION.

DR. LANDRUM, Altus.

There is no one particular point in the body that the reflexes have their origin. A great many in the pelvis, and we may have loss of reflexes, some one of which is due to disturbance in one part and others in other parts. We know that all headaches are not due to one particular reflex disturbance, but about eighty per cent to errors in vision and often times in women who have reflexes derived from derangements of the pelvis, with headaches about the time of menstruation. Probably the most important cause of headache then is due to errors in vision. Every practitioner should be able to correct the difficulties of headache, for eighty per cent of headaches are due to that cause, and if that particular cause is removed perhaps the woman will better bear the disturbance at her menstruation periods.

THE CHAIRMAN: If there is no further discussion will ask Dr. Torrence to close the discussion.

DR. TORRENCE, Okmulgee.

I will not take much time in closing this. I think I said about eighty per cent come from disturbed vision, but during the menstruation period they are worse. I tried to bring this point out. That it was the condition that set up that reflex irritation. Malconditions on the outside of the uterus would cause pain in the head or cerebral spinal system, and conditions in the uterus itself would be more apt to cause the other symptoms for the reason the uterus itself is supplied only by sympathetic nerves.

## EXPERIENCES IN EARLY DAY OBSTETRICS AMONG THE INDIANS.

BY DR. D. LONG, Duncan, Okla.

What we have done, what we are doing and what we ought to do in obstetrics. If I should give dates correctly in this paper, someone who does not know me would know something of the length of time that I have been engaged in practice in the now State of Oklahoma, then Indian Territory. I located in my present home, Stephens county, in July, 1885, there I did the best I could for the people who were scattered over a considerable territory. They were mostly what they called themselves, new-comers, but few of them had been there more than one or two years except a very few In-

dians or natives who were there more or less transiently. I will say nothing about the financial or remunerative side of the question as I see around me a number of doctors who have had more or less experience in new countries. In the community where I located there was a man practicing medicine and preaching between times. This man was my dependence for a consultant and I being young and inexperienced, often availed myself of the opportunity of doing so. But this man soon went away leaving me alone and not another doctor in the whole country—none near enough to consult in an emergency. So I went along the best I could without anyone to advise with. Whatever I was called upon to do I did the best I could. Of course I had all kinds of cases, I suppose the same as we have now, but I did not recognize the conditions as they arose as we do now. I frequently was called to cases that needed surgical care the same as we do now, but you see how I was situated then without hospital facilities and no one to consult as to diagnosis, prognosis or treatment, so what was I to do—of course, act on my own judgment. I often saw my mistake, sometimes it was too late, but sometimes not. I want to say just here that right along here I learned some things that have been worth a lot to me all these years since. I was forced to contrive various means for treatment both for medical and surgical cases. In those days we did not have at hand the conveniences that we have now and especially so in a country so rural as this, for it was 85 miles to the nearest drug store where a decent prescription for a cold or a case of acute indigestion could have been filled. Two things I tried always to have at hand, namely, chloroform and morphine. In cases where an anaesthetic was needed I have often administered the same myself after having made all necessary preparations as best I could, for operating, then instruct the most intelligent looking woman present how to keep my patient under while I operated. And I will say right here I had a good many close calls but luckily I never lost a single case in anesthesia during the time I was forced to do without consultation. During the eight years I was thus situated I attended some 14 cases of forceps delivery, in which I started the anaesthetic then entrusted it to some woman whom I directed how to keep it up, until I delivered the child. During this time I had in every neighborhood some woman who I had entrusted with the anaesthetic until they thought they were experts, and I even consider them of some importance for a man never realizes how important it often is to have even a little assistance until he has been thrown entirely upon his own resources and too he realizes they are so limited. For the first few years after my graduation my principal armamentarium was a few articles so far as obstetrics were concerned, a hypo-syringe, ergot chloroform and an Obstetrical-forceps, the last which I had always valued very highly on account of an impression I received from its use in my early

career. While at a former location in Texas I was called to a case of obstetrics which proved to be very lingering,—and annoying to me. I had never delivered more than a dozen women up to that time. I made an examination and found slight dilatation; after so long a time made another examination and found very little progress. By this time the pains were getting harder. The woman was a short, dumpy subject and a multipara. I watched the progress of the case. It was a warm day in May and as the day was passing away the pains grew worse and the suffering was out of proportion to the dilatation. So I undertook to dilate the os with my finger and succeeded somewhat in getting complete dilatation after so long a time. In the meantime the husband and wife too had become very restless and worn out and I could see that they were uneasy. So they finally decided they wanted counsel. Well we had to send a man horseback about four miles for a doctor who was older than I and a man with some experience. He came and examined patient and suggested to me that the only chance for delivery was with forceps. Of course it was all right with me for I wanted the woman relieved, so he asked me to administer an anaesthetic and he would deliver her; he did so and did a nice job as we considered not excepting a lacerated perineum. So then and there I decided to get an Obstetrical forcep and use it when in my judgment I thought the case demanded it.

But I must get back to my present location—I. T.—where after a few years there began to come in and locate around, physicians of various schools—some of whom had never attended any school at all. During this time there had located about 15 miles from me a doctor who appeared to have some reputation among the people in his community. I soon formed his acquaintance and was glad to meet him and did so occasionally. So one morning I received a note from him to come and bring with me another doctor friend who had located near me a short time previously. We reached the place where we had been directed to go and there found the doctor in charge of a full blood Indian multipara who had been in labor according to the doctor then three days. The woman was a short, dumpy woman of about 32 years. I made an examination and found an arm hanging out the vulva. The arm was limp, cold and black and evidently the fetus had been dead several hours. There was complete dilatation and the fetus was so low in the pelvis and looked like it could have been easily remedied. I took in the situation at a glance, the woman was exhausted, having no pains at all and hadn't for 12 hours. She was lying on a straw mattress, everything reeking in filth and dirt. Patient almost pulseless and cold and evidently had been in this condition for a considerable length of time. The doctor in charge asked me what I thought of the case. I told him I thought he would lose the woman, regardless of what was done. The husband was a



full blood who could not speak a word of English, and we could not get his consent or explain to him what ought to be done in the case. So we went to work and gave her strychnine and ergot, and in the meantime I had washed my hands and made an attempt to return the arm which was protruding but failed to even budge it in any way whatever. There was a solid, fixed appearance to the whole presenting fetus—and I will here state that it looked gloomy indeed, but we considered that the woman would die any way so we would deliver her if possible. We had nothing at hand to do any sort of an operation with and as unfavorable surroundings as was possible to have. But after failing to return the shoulder and arm or even make any progress whatever it began to look more serious than ever for it was evident that it would require some operative procedure to deliver her. Knowing the child was already dead we decided that any means to deliver without injury to the mother would be justifiable. So seeing the child's head being doubled or pressed over the shoulder the neck was in plain view and being jammed so completely down in the pelvis that the neck was simply doubled upon itself. By this time we had succeeded in bringing about some reaction from the apparent shock and were having some uterine contractions but still we were not able to return the arm nor push the shoulder nor any part of the fetus up into the pelvis, so the only alternative was to bring down some part of the fetus which we tried to do, but it was as tight and as hard to move in that direction as the other. We thought now if we had something by which to produce reaction we might bring down some part of it. So we had nothing to get hold with. I went out to the wagon which stood near the cabin and took the rod out of the back end of the bed. This rod was about three-eighths of an inch in diameter and about four feet long with a ring at one end. The other had threads on it so I stuck the thread end in a crack in the cabin and crooked it about like a hook then passed it around the neck of the fetus. We now felt as if we had the problem solved for we never doubted that we could bring down the head by good hold on the long rod with the ring at the end and it looked easy. But we failed, so we decided two of us should try it, so two pulled on the rod and the third one and the husband held the woman on the bed, and we pulled with about as much force as we thought safe. But we did not move the child a particle. We next decided to sever the head from the body, and thought by so doing we could deliver either the head or the body. So using our hook for our guide we separated the head with a jack-knife, after which the head was easily pushed back up into the fundus of the uterus. We then had more room and succeeded in bringing down the other arm and with a reasonable amount of reaction delivered the body and by this time we had succeeded in getting up considerable contraction and almost the very next pain delivered the head. The child looked

so large that we weighed it and it weighed 14 pounds. We at once gave our whole attention to the mother who was in extreme exhaustion. We administered everything at our hands to relieve her and fortunately she began to show signs of improvement. We left her within two or three hours and I did not see her again but the doctor told me that she made a rapid recovery. Now there is an idea that Indian women bear children easier than white women, but my experience covering a number of year's practice where there is quite a number of Indian women has shown that there has been as many difficult cases among them as the whites. In those days I was often called to a case of obstetrics where it was impossible to even make an effort toward cleanliness for the surroundings would not admit of it. Large families in small huts or dugouts, with the dogs and chickens and sometimes pigs in the house, and not a clean or even fresh laundered towel to be had. So what could you do in the way of asepsis? There was perhaps four-fifths of the cases of this character and with all this filth I do not see that I had any more cases of infection than I have now. Now do not understand me to say that our present efforts are nil in the attempts at cleanliness for I believe that the physician, surgeon or obstetrician of today, in the light of the teaching of the bacteriologists who does not use all efforts possible to be clean in his work, let the case be what it may, is guilty of criminal negligence. In obstetrics I do not believe as some advocate that the pubes should be shaved and all the technique gone through with as if a laparotomy was going to be done. What would the ordinary woman who lives in the country and has always lived a simple life, think or say, when the doctor came to attend her in confinement, should he expose her person and shave the pubes, and make the complete toilet necessary for cleanliness. This same doctor would not be called to this woman next confinement nor to any other case in that community. When he succeeded in cleaning up his patient he would not have anything else clean for in the ordinary farm house it would be impossible to have at hand clean vessels or towels except from the ordinary laundry. So I consider it a waste of time to undertake this procedure. But it is always easy enough to have the patient take a bath and have a normally clean skin to begin with. My ordinary procedure in obstetrical cases is to have the lower bowels washed out thoroughly with hot water, this usually causes a large copious flow of urine this aside from the mechanical effect renders the patient more comfortable and inspires confidence in them that the doctor is trying to assist them in some way. In making digital examination I render my hands as near aseptic as it is possible with the surroundings, for as I have said before there is never a vessel at hand that can be made clean. In making digital examinations I do not introduce my finger up into the os between that and the presenting part unless I think it necessary. For that

purpose, I carry a rubber glove rolled up in a sterile package of gauze. I do not consider that there is much danger of infection through the vaginal walls as the secretions continually washes away what ever might be carried there by the hand. I do not make more digital examinations than I really think necessary. I leave the bag of waters alone until I get complete dilatation. Sometimes though the contractions will rupture it earlier. When the presenting head begins to press on the perineum I wring clothes out of hot water and press against same, at the same time I have my patient to inhale a small amount of chloroform, by so doing I believe I have less lacerating and quicker deliveries and have never had any bad effects from the chloroform to either mother or child. I tie the cord in two places and cut between. After the child is washed I tie the cord a second time after examining it. I do not like to have the cord bleed and soil the infants' clothing, besides I have seen one or two children bleed very freely. I use very little traction on the cord to deliver the placenta. I use Crede's method to empty the uterus which is very easily done. Usually I do not put my finger in the uterus unless it is necessary to remove pieces of placenta, then I put on a rubber glove and go after what is left. After removing placenta I do not turn my patient over to some old fogey woman to clean up. But I have her turn on one side and remove all soiled clothes and clean her myself, and at the same time examine for lacerations or any other injuries which might occur. I then dry the buttox thoroughly and dust with a dry and fine powder after which I place a clean pad under the patient and over vulva, with instructions to replace it with clean ones after it becomes soiled. By this time patient almost invariably expresses herself as feeling better. By this procedure I usually have a fair degree of success. In fact I have not had a case of infection in three years. I believe there are more cases of infection caused by continually examining patient with unclean hands than anything else. I will state I direct my patients to stay in bed 10 days. I expect by that to get them to remain in bed perhaps from six to eight days. I have not attempted in this short rambling paper to advance anything new, but to give a bit of my experience as a pioneer physician and somethings I probably would never have learned any other way.

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### WHERE ANGELS FEAR TO TREAD.

By S. H. LANDRUM, Altus, Okla.

In nineteen hundred and five the Carnegie Foundation for the Advancement of Teaching began an investigation of the various institutions of learning in the United States, Canada, and Newfoundland. The work was undertaken by a committee appointed by the trustees of the Foundation. These gentlemen were entrusted



with a fund, the purpose of which was to aid teachers in such establishments as should measure up to a certain standard.

Of a series of reports on professional schools, Dr. Abraham Flexner, in 1910, presented the first one on medical education. From a number of schools a spirited remonstrance arose because, it was alleged, the doctor and his nosing squad unceremoniously opened the door without knocking and walked in with their hats on. They literally dragged the skeleton from the closet of some rather respectable places of medical learning. No one denied that a thorough and impartial investigation was sorely needed, and that the committee did tell a large batch of truth. Some, however, saw evidences of unfairness in the report. In the Southern States it was claimed they could see faint traces of Mason and Dixon's line like a delicate watermark in the paper. Others insisted that their schools were shamefully misrepresented, and threatened to have damages. Naturally it was embarrassing to have one's soiled linen hung on the front fence.

However, putting all prejudice out of mind, we must admit that the invasion was well timed, the campaign admirably directed, and that the results are gratifying. The effect of this censorship upon certain speak-easy schools was analogous to that of the village gossip upon her neighbors, whose influence over the ethical hygiene of a given community is so salubrious. Upon medical education everywhere in the United States the effect of this investigation was pronounced. There was a general clean up and consolidation, a merging and pooling of funds for better equipment. The standard of requirement for entrance and for graduation was quickly readjusted to meet some of the suggestions offered in the report. The graduate of this year, as a consequence, is a man of more careful preparation than the man of two years ago. Anticipating this state of affairs the doctor who received his degree ten years ago and has been dilatory in his work has suddenly taken on new life and occasionally is heard from among his brethren as having done something on his own account. The extinct county medical society has been revived and reorganized and some wideawake doctor from the forks of the creek has suggested the adoption of the post graduate course of study offered by the American Medical Association. Succinctly put, the result has been to stir up the country doctor to get ready for higher requirements from his patients. He subscribes for one or two good medical weeklies and relegates the little dollar-a-year monthly, done up in its patent medicine wrapper, to a duty most degrading and one quite foreign to the original design of its publisher. Instead of buying another horse he invests in a good microscope and a few more sections of library. He realizes that if he doesn't do about, some well educated man from a first class school is likely at



any time to make a business of answering calls in his immediate territory. He at once recognizes a pressing behoof. He no longer writes prescriptions with his gloves on, and pays less attention to the tongue and more to the chest. He begins making a study of every case he has and sees the value of recorded observation. Gradually it dawns upon him that the arduous hours spent at the bedside of a patient critically ill, if the time be employed in earnest clinical study, will yield greater reward than weeks spent amid the allurements of a great city. As he applies himself more closely to the business of understanding disease the more interesting does the study become. He finds that the people out on the rural routes have learned from reading the papers that it was a doctor that cleaned Havana, drove the plague infected rats from San Francisco, and is digging the Panama Canal.

After all, he sees a chance for Doc to command some respect from the laity. He loses interest in politics, except in that concrete form which concerns directly the integrity of his own profession.

The man I have outlined is the average country doctor who really has a conscience and some concern for the people who make up the community in which he lives. He has it in him to accomplish something, but the native ability has lain dormant because of an unsophisticated constituency, and the laxity of the state in its demand for scholarly equipment. But the requisites of nineteen hundred and twelve is efficiency. Men in the small towns and even out in the rural areas where the railways do not reach may find that their patrons expect of them the best that is to be had anywhere. In such a case the question arises how to meet such expectations. Some poor woman thinks the doctor should know how to treat every ailment that attacks the human body and she will be content with nothing less than that the family doctor take complete charge of her case. There is such a thing as the family physician's ability to do this, and to do it as it should be done. If he has prepared himself for the great and constant emergency of dealing with disease in an out of the way place like Snyder's Gin, he will be able to meet the draft upon his wits and to sustain the exalted ideal of which he has become the counterpart in the mind of his patient. He should never undertake a thing he can't do, but he should be able to do it. To know what not to do and when not to do it is indeed important; but to know what to do and how and when to do it is of distinct and positive value. For the family physician to carry a thermometer and to operate a hot water bag for another doctor who is supposed to know more than he, is certainly not an edifying spectacle. That is the type of doctor that gets the pernicious habit of loping off to the infirmary of Ward, Roebuck & Co., with a moribund patient for the removal of a fulminating appendix. Such a man is not even a

good nurse, or he would have made an earlier diagnosis. The proprietors of that institution may be honorable and competent, and may deal justly with both patient and colleague, but that does not excuse their rural confrere for placing them in the awkward position of refusing to operate upon a patient in extremis.

But while Drs. Ward, Roebuck & Co. are thoroughly honorable and are frank with the patient and fair to the family physician, exacting from the patient pay only for their own services, leaving the doctor to present his own bill, yet in that same city the firm of Sears, Montgomery & Co. have adopted the budget plan and do all the collecting and take care of the pestle-headed doctor who has rail-roaded his patient to them for part of the fee. Here is work for the good Samaritan.

Three or four years ago I received a circular letter from a surgeon in Texas offering me a certain per cent of all fees he should collect from patients I would send him. He was at that time a member of the board of medical examiners, and his name is on my license of 1908 for the State of Texas. This gentleman hangs out at Fort Worth. I had to grant him the courtesy of a reply, and from that reply he learned that I was not the common pinap that he thought.

I hold that we should recognize a surgical emergency and be ready to meet it personally, either with a timely diagnosis or with prompt relief. This applies to those contingencies which arise where a patient lives some hours from special surgical help. Again this principle is adapted to the case of those unfortunate individuals who have not the price to pay for a visit from the distant surgeon, nor for hospital accommodations.

The doctor's first meeting with his patient may be while she is undergoing an eclamptic attack.

He is ten miles from help. Must he give up and wait? If in addition to eclampsia he finds a placenta praevia and twins, then what? Will he attempt it? If he is made of the stuff some country doctors are made of he will, and in a fair number of cases succeed. He will not wait for the doctor ten miles away, but a neighbor woman will give the anaesthetic while he goes after the babies—dead or alive, of course. If he injures the perineum he will repair it before he leaves. This breed of doctor will drain a cul de sac, resect a rib, chisel into a mastoid antrum and remove an ingrowing nail all on the same day, his patients miles apart, do it effectively, and never boast of it. If a poor woman whose husband can't dig up the money for the removal of an ugly fibroid that has begun to mar the symmetry of her abdomen should ask this doctor if he can relieve her, he will say "yes", and remove the fibroid. A retroverted uterus, with big old cystic ovaries, a condition remarkably frequent

in Oklahoma, for some unaccountable reason, may be the next problem to confront him. There is but one course open to him when this patient asks for relief. He takes that course, and she is ever afterward grateful to him. He may have to go up into the sand hills to remove some gall stones and drain a gall bladder. It can be done in the sand hills if there is no other way, and often there isn't. In a pinch he can remove a retropharyngeal abscess with a pocket-knife and hang the baby up by the feet to drain. Its breath will come by and by. He can save a mother's darling with an O'Dwyer's tube, cure the mother's recurring headaches with properly fitting compound lenses when she thought she was suffering from "bilious spells", or do a hysterectomy on occasion. He can do all these things and then some, if he does practice in the country far from the maddening throng. To be sure he has a death rate. Who hasn't? But he is in a position where he must meet the condition, because that is what confronts him, not theories. It has been put up to him to do these things, shall he say he can't? At first he had no choice other than to attempt them or let his patient die without effort to relieve her. Having passed through one experience after another, a long train of tragic emergencies, with alternating triumph and failure, he has finally gained that confidence in self that means success. He has had no lack of clinical material and opportunity, for often it has been his double duty to act the role of both physician and nurse. Seldom is he allowed a post mortem, but as a recompense for many a tedious vigil he has learned valuable clinical facts.

He was thrown precipitately from the cap and gown of his commencement festivities to the boots and saddle of active service on the raw frontier. He no longer had the questionable advantage of consultation with his superiors when in doubt, but rather the glorious privilege of attacking difficult problems on his own initiative. Success in his profession he knew was not measured by isolated strokes of brilliancy, but by the sum total from the long run. He recognized that what is often taken for a sharp, shrewd intellect, is but shallowness turned up edgewise. He is aware that when he came out of school the game was just begun, and that his graduation represented only the shot from taw. Such a man is not likely to acquire that weak habit of referring his patient on the slightest pretext. In other words, and less elegantly expressed, he will never become a victim of that misearable and incurable disease known as "the railroad trots". He is the stalwart, self-reliant, close-mouthed, hard brained country doctor we so much need everywhere.

## THE DIAGNOSIS OF FEVERS WITHOUT MANIFEST PHYSICAL SIGNS.

BY C. J. FISHMAN, S. B., M. D., Oklahoma City.

As our means of diagnostic investigations become more numerous, the cases in which we can not explain the cause of pyrexia will become fewer. There are a large number of diseases in which clinical pathology must be used to give assistance in the diagnosis of conditions in which fever plays the most conspicuous part as a symptom. The more recent methods of investigation have given us a direct and precise aid to the unveiling of obscure conditions. Among these may be mentioned microscopic examinations of the blood, sputum, urine, etc., as well as the specific agglutination reactions and more recently, the specific agglutination reactions and more recently, the specific serum reactions as an aid to diagnosis.

The causes of fever may be classed as follows:

### I.—PHYSICAL CAUSES

### II.—PATHOLOGICAL CAUSES

And this latter class may again be divided into two groups:

- (a). Those cases with latent or ambiguous physical signs, which are not sufficient for diagnosis,
- (b). Those cases in which physical signs are entirely absent.

In this class of cases are found many instances which tax the ingenuity and resources of the physician to the utmost degree. Although these include the most difficult, yet their problems are the most fascinating in clinical medicine. I need mention only a few of the cases of fever which are concerned with the deeper organs and tissues and which yield practically no demonstrable physical signs. Among them are the infections of the blood, intestines, gall bladder, pancreas, endocardium and spinal meninges.

#### Class I.—*Physiological Causes of Fever.*

The following may be mentioned and are not infrequently encountered:

(1). *Exercise and Manual Work*—It has been repeatedly shown by experimentation that ordinarily healthy individuals when walking for one hour at the rate of four miles, have shown at the end of that time an increased temperature frequently amounting to 100.5 to 100.6 degrees and if their rate of walking is increased to six miles for the hour, the temperature may rise to 103 degrees.

(2). *Exposure in a HOT BATH* over 112 degrees for a period of time will frequently raise the temperature up to 103 or more degrees. During the course of a Turkish bath, however, the temperature does not usually rise to that extent, because of the profuse perspiration which the individual experiences.

(3). *Drug Temperatures.* Just as certain drugs have the power of lowering temperatures, so other drugs and chemicals frequently



give rise to increased temperatures, some of them to an exceedingly high degree. Belladonna occasionally will give a temperature which when associated with a rash may not infrequently be mistaken for scarlet fever. Cocaine also sometimes gives a temperature, while some of the other drugs and chemicals rarely used in medicine, notably have the power to increase bodily temperatures.

(4). *Diet.* Carbohydrates particularly in the diet of children may give rise to a high degree of fever without other physical signs or symptoms. The patient's temperature will rapidly reduce to normal as soon as the offending food-stuff is omitted from his diet.

### Class II.—*Pathological Causes of Fevers.*

This may be divided into two groups:

(a). Those in which physical signs are latent or difficult to find or to interpret, and

(b). Those cases in which physical signs are entirely absent.

In the first group may be mentioned the following:

(1). *Cholecystitis*—This is a very frequent cause of fever without obvious signs and these cases may go on for many weeks or months without a diagnosis being made. The difficulty of diagnosis is particularly increased because so frequently the patient subject to this condition is a stout, robust individual, making abdominal examination difficult. Pain is generally present, although by no means often severe. There may be intestinal distension. The attacks usually are irregular and frequently are recurrent. Tenderness over the gall bladder region is a most constant finding and repeated examinations made at times often reveal a round elastic tumor in the gall bladder region. The urine should always be examined for traces of bile or bile antecedents. Jaundice, of course, may be absent during the entire course of the process, which may or may not be associated with gall-stones. The blood findings should show a moderate leukocytosis, although it is not unusual to find a normal or even decreased white count and in such cases, the differentiation from typhoid is difficult. However, the absence of the Widal reaction, the irregular type of temperature and the sterile blood culture all speak against typhoid. Moreover in typhoid, there is frequently a relative lymphocytosis which is absent in this inflammatory condition of the gall bladder.

(2). *Cystitis, Pyelitis and Pyelonephritis*—Sudden rises in temperature accompanied by chills in old men, in young children and in patients suffering from nervous diseases, frequently have their explanation in infections of the urinary tract as an ascending process. In these cases a careful urinary examination will reveal an amount of pus and is usually the only sign of disease and should not be overlooked. The most common cause of these infections is the bacillus coli, which is sometimes found without pus. The presence of bacteria

in a freshly voided specimen must be looked upon with suspicion and it is not infrequent that a macilluria without purulent discharge will give rise to temperature without much of local signs.

(3). *Sinus and Middle Ear Infections*—It so often happens that because the patient will complain simply of a headache and the physician finds only temperature for his physical sign, that these cases are frequently overlooked. Besides a thorough and careful physical examination, presumptive evidence of sinus involvement is evinced by localized tenderness upon percussion or palpation and a tentative diagnosis of infection of the sinus cavities may then be made. This is usually easily confirmed by the specialist. Incidentally, it is well to note that infections of the head cavities are practically always associated with considerable increase of the leukocytes and particularly of the polymorphonuclear variety.

(4). *Pyorrhoea Alveolaris*—One should never omit a very careful inspection of the teeth and gums in cases of obscure febrile conditions. Considerable pyrexia may be noted, particularly over short periods of time, due to cases of infections in the mouth.

(5). *Subhepatic, Subphrenic, Perigastric Abscesses* are the results of serious complications of gastric ulcers and of inflammatory disease of other abdominal organs, the physical signs often being absent or delayed. Not infrequently plenritic friction rub is the first sign to be noted, except of course, the pain and tenderness. These cases frequently follow operations upon the stomach or duodenum. The progressive increase in the leukocyte count should suggest localization of pus.

(6). *Acute Rheumatism* is occasionally seen without localized manifestation in the joints. Among these cases it is probable that a serous membrane somewhere in the body is in a state of inflammatory condition. Occasionally old valvular diseases may undergo an acute exacerbation. Frequently there may be associated pericardial inflammations with perhaps adhesions in the pericardial membrane. According to the most modern conception of this disease, it is undoubtedly a general sepsis and affects the joint only by a localization of the general septic process, having also a great affinity for other serous membranes, particularly those lining and covering the heart, as well as the pleura and even peritoneum.

(7). *Tuberculosis* is one of the most frequent causes of fever with latent physical signs. Generally the diagnosis of a tubercular process is made too readily on cases which run a febrile course, but it must always be remembered that such a diagnosis is not justifiable unless other causes are positively excluded. On the other hand, it must not be forgotten that besides the lung and pleura, other organs may frequently be the localization of a tubercular process, particularly the peritoneum, kidney, adrenal glands, the lymphatic glands anywhere in the body, as well as the tubes. The various tuberculin tests

should not be omitted in these cases and when an area is suspected, it is possible that a small amount of blood or pus may be obtained and this injected into a susceptible animal for diagnosis and developments awaited.

(8). *Pneumonia*—Although a disease which primarily is diagnosed by its physical signs, will be found in its early stages to be difficult of diagnosis because these signs may not present themselves during its incipency. A chill with a sudden rise of temperature after exposure to cold associated with a marked leukocytosis in an adult, should always make one suspicious of a possible pneumonia. It is in the early stages particularly where the blood culture will be positive and in this way diagnosis may be made sometime before the physical signs manifest themselves.

(9). *Syphilis*—During the secondary stage in the absence of a history of a primary lesion, particularly if the course of the disease is somewhat irregular, the diagnosis will often be confusing. A Wasserman reaction in these cases is of inestimable value.

(10). *Tonsilitis* is an omnipresent source of fever, particularly in children. The most puzzling cases are those in which the tonsils are small, especially when they are partially or completely covered by the pillars so they are quite invisible and are therefore frequently overlooked. An earache, a few large glands in the neck or adenoid features will lead the cautious physician to look carefully into the throat. A leukocytosis will speak volumes for localized infections in these cases.

(11). *Post Operative Febrile Conditions*—Nearly all cases of major operations are followed by rise in temperature. This may be attributed to a number of things. Even though there has been careful asepsis throughout the course of the operation, the patient may develop a temperature. The so-called aseptic fever is probably due to the absorption of necrotic tissue after more or less careless manipulation of the tissues. Extreme gentleness in handling organs will prevent many anxious hours for the operator after his work is completed. Chemical antiseptics play an important part in the cause of the production of fever by their necrotic action on the tissues and also in this manner by opening a nidus for the development of organisms. Shock and loss of blood will also be some of the reasons for the rise of temperature after an operative procedure. These conditions, however, are usually only transitory and not associated by blood changes. If the temperature continues for some length of time and the leukocyte count is found to be increasing, localized inflammation must always be considered. Among the later complications which will result in fever may be mentioned thrombophlebitis and pneumonia.

#### Group B. PHYSICAL SIGNS ENTIRELY ABSENT.

(1). *Acute Colds*—Probably the most frequent cause of temperature during the winter months is the acute cold. In my practice



I have found two classes of acute colds; one in which there is a sudden onset with a very high temperature and the high leukocytosis associated generally with marked malaise with or without gastrointestinal symptoms. The other class presents the following picture: rather insidious onset with headache and generalized bone pains, associated with a leukopenia, the temperature being generally low. The first class of cases I have called acute colds and these clear up rapidly, usually within twenty-four or thirty-six hours, and the patient is fully recovered, while the second class I have called influenzal type, and frequently a convalescence complicated with the usual influenzal complications.

(2). *Influenza*—The subjective symptoms of the patient, of course, are usually characteristic with extreme lassitude and malaise. However, there is nothing specific about any of the symptoms of influenza or even all of them taken together. They are simply a group which are characteristic of a general infectious process. The fever usually lasts only five or six days unless complications set in. In such cases, there probably exists a localized focus of infection when physical signs gradually develop. As in typhoid fever, influenza is associated with a leukopenia, which is of value in diagnosis, particularly in the absence of a positive Widal. Uncomplicated influenzal pneumonia is undoubtedly very rare and usually runs a stormy course, carrying with it a high degree of mortality. The finding of influenza bacilli in the nose and throat is, of course, of particular significance. During an epidemic the diagnosis becomes much easier.

(3). *Typhoid Fever* is the most frequent and important cause of fever in cases whose duration is longer than a week, and in our country it must always be borne in mind. Being protean in character of symptoms early errors in diagnosis are frequently made. Sometimes delirium or unconsciousness will mark the onset of this disease, so that its general characteristics are frequently masked. A low leukocyte count with a relative leukopenia during the course of a continued fever lasting more than one week points very strongly to the diagnosis of typhoid and if with this a positive Widal is obtained at the end of that time, or even later, the case must be considered as positive from a diagnostic point of view. During the first week of the disease, the diagnosis made must frequently be established by blood culture, which can easily be made and is found positive in 85 to 90% of the cases at this early period.

(4). *Septicopyemia* frequently leads to marked fever without other physical signs and in children particularly these cases are often overlooked and are sometimes associated with localization in the bones. In the course of a streptococcus infection, the leukocyte count is usually low, while in the staphylococcus type of organism, the leukocyte count is high and particularly becomes increased when localization is present at some point. The organisms may frequently be cultivated from the blood by culture in many cases.



(5). *Malaria* is now no longer common in this country and a positive diagnosis depends in finding the organism in the blood. This disease is usually associated with a marked leukopenia and the type of fever is of course usually intermittent. Emercon speaks of finding a high percentage of large mononuclear cells in chronic cases where the plasmodium is difficult to find.

(6). *Cerebrospinal Meningitis* is seen so frequently in sporadic form that its presence should never be overlooked in cases where a fever of an obscure origin is present. Not infrequently there may be absence of diagnostic signs for a considerable period of time, so that a suspicion of meningitis will be absent. A headache with pains in the back and temperature should lead one to do a lumbar puncture without hesitation. In these cases the spinal fluid will give positive evidence of one's suspicion or dissipate his fear regarding the probability of its presence. Incidentally, leukocytosis is always present and will not only confirm the diagnosis of meningitis, but will point toward the presence of meningeal irritation in the absence of other physical signs.

(7). *Miliary Tuberculosis* is sometimes present without localizable physical signs. Blood culture in these cases are negative, in contradistinction to other types of septicemia, where a positive culture is usually obtained. Under the associated blood findings may be mentioned leukopenia with a relative increase in lymphocytes; the absence of the Widal and the presence of a positive skin tuberculin reaction. A common localization for a focus will be the kidney and not infrequently fundus examination will show choroid tubercles. Rosenberger has reported a number of cases in which he claims to have demonstrated tubercle bacilli in the blood stream, but this finding has not been verified by other observers.

(8). *Intestinal Infection and Intestinal Intoxication*—This class of cases frequently include a large number in which there are no characteristic specific signs and are probably the most frequent cause of fever, especially in children. The diagnosis must necessarily be made upon the pathological findings with special attention to the stool findings. These cases may be classified as follows:

(a). *Intestinal Diseases of Infants and children* usually due to errors in diet and are most commonly associated with fever. The examination of the stools will reveal the true pathological condition in most of these cases. The specific causes of these intestinal intoxications may be due to any of three classes of food-stuffs and we have therefore a group of cases which are known as carbohydrate fevers of children, and it is well-known that proteid fermentation will also frequently cause severe symptoms with fever.

(b). Another group of cases may be caused by the presence of *Intestinal Parasites*. Fever is not uncommon and is due to the absorption of the products excreted by the worms, or by the mechanical

irritation of their presence, or due to a secondary infection as a result of the injury to the mucosa made by the parasites. A careful examination of the stools is always to be made in all cases of obscure fever and if the parasites themselves are not found, ova will frequently be observed. The presence of an increased percentage of eosinophilic leukocytes in the blood should always point towards an infection of intestinal parasites. There is frequently also a leukocytosis associated with this condition.

One of the most interesting cases in my experience was during my examining service, where one of the patients was a boy nine years of age. He came to the hospital with the history of severe headache lasting five to six days; pains in the back of the neck; nausea but no vomiting. He had a moderate temperature about 102 degrees. There was marked rigidity of the head and neck with a positive Kernig sign. The boy was hyperesthetic over the entire body and my examining room diagnosis was tubercular meningitis. He was taken into the hospital and routine examination revealed negative findings in the spinal fluid, but a marked eosinophilia of 11 per cent. By the time stools were sent to the laboratory for examination, the nurse on the case reported finding a large number of ascaris lumbricoides in the stool. The patient's temperature promptly disappeared, his rigidity and headache left him and he was sent out of the hospital a couple of days later as a "cured" tubercular meningitis, after having taken a sufficient quantity of santonin.

(c). *Constipation* is not infrequently associated with fever and occasionally the temperature may rise to a considerable degree. There is always a leukocytosis present, but usually there is no local tenderness or abdominal rigidity, which excludes appendicitis or peritonitis and the leukocytosis speaks against typhoid. Because of the intestinal intoxication associated with it, indican is usually found in the urine.

(9). *Starvation Fever*—Not infrequently following a long period of severe illness when the diet during the acute stage has been low, I have seen cases of fever which have ascribed to starvation. These always show acetone bodies in the urine and the temperature promptly disappears upon increasing the diet of the patient so that he receives a sufficient number of calories for the maintenance of bodily nourishment. This may often explain the cause of persistent temperature in the convalescence of typhoid, which has been ascribed to a relapse of the disease. Sure it is, that in the cases which are treated by an increased caloric diet, the number of relapses are fewer and the convalescence frequently shortened.

(10). *Nervous Fever*—After all other physical causes of fever have been excluded, there still remain a limited number of cases for which there is no explanation and some of these, in fact, may be classed as nervous fevers. It is well known that brain injuries, especially injuries of the corpus striatum and the spinal cord, will cause a

very high degree of temperature. Other causes of fever need only be mentioned. Among these are delirium tremens, status epilepticus, brain hemorrhage and tumour and occasionally hysteria, which is purely a neurotic state, having some influence upon the heat regulating mechanism. Duct fevers such as urethral or catheterization fevers and associated with duct colics are probably nervous and of reflex origin.

When seeking the diagnosis of the cause of fever in a case without manifest physical signs, it frequently becomes a problem that is difficult to solve. It should not be forgotten that a careful history must be obtained and a most thorough physical examination made, so as to exclude all evident diseases. All the organs and systems must be examined most carefully and critically and after that, the method of diagnosis becomes principally an exercise of pathological procedures, where no evidence that can possibly be obtained, must be overlooked.

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### A LETTER FROM A TABETIC PATIENT.

*(Edited by Antonio D. Young, M. D., Lecturer on Nervous and Mental Diseases, State University Medical School, Oklahoma City, Oklahoma.)*

Dear Doctor:—As you are doubtless aware, I came from very healthy parentage and, biologically speaking, was at the time of my birth above reproach. With the exception of an attack of measles at the age of ten, I remained in good health until twenty years of age. At this time some three weeks after a moral lapse I developed a sore on my penis diagnosed by our old family physician as a chancre. Some little time after the healing of this sore I developed a slight rash extending over most of my body which completely disappeared in the course of two weeks. The old doctor explained to me the nature of syphilis and conscientiously, as I am now convinced, advised a two years' course of treatment. Such a slow method did not strike my fancy and I accepted the assurance of a "specialist" in a nearby city and paid him some good money to cure my "blood poison" in three months. From that day to this I have had no symptoms that may be attributed directly to syphilis but knowledge acquired during the last ten years (I am now 55) has proved to me that my present pitiful condition is due to that early infection aided, perhaps, by a somewhat excessive use of intoxicating beverages. I have never been what is generally recognized as a drunkard, but as you know I have been more successful than the average man and lived my life until the last few years at a high tension which fact seemed to make it necessary to drink some alcohol every day.

Except as stated above there is nothing of interest in my medical history (except the fact that I have two unusually bright, healthy



children, 14 and 16 years old) until I reached the age of forty-five. At this time I began to feel the need of glasses in reading and attributed this condition to my age, which view was concurred in by the oculist who fitted the lenses. During this same year I began to have occasionally a few peculiar shooting pains in my legs that distressed me but momentarily at first. However, these pains became more severe and occurred more frequently until I was compelled to seek medical advice. Our old family physician having gone to his reward some time before I consulted his successor who promised to have my "rheumatism" relieved in a short while. For a few weeks I was better but soon the pains returned and my doctor now thought I had neuritis and advised abstinence from alcohol. I followed his advice without relief. It is only fair to say he was unacquainted with my early history and as I scarcely remembered it myself I unconsciously concealed from him facts of great import bearing on my physical condition. I should at this point, perhaps, describe the nature of the pains which I have mentioned and which were a source of annoyance and great suffering for many years.

At first the pains appeared at intervals of several days and lasted but a few minutes each time. They were sharp and shooting in character and came suddenly without warning, during the time I seemed to be in perfect health like a bolt from a clear sky. As I mentioned above my physician thought they were rheumatic or possibly neuralgic and deemed them of little consequence. His anti-rheumatic treatment seemed to relieve me for the time being but in the course of a few months the interval between the attacks of pain became noticeably lessened until in about eighteen months I experienced some pain every day, which often lasted two or three hours at a time, and interfered considerably with my business. I also noticed my general health began to fail, doubtless due to the continued repetition of these excruciating pains. In all these attacks of pain persisted over a period of five years leaving as gradually as they had come.

During the last year of my pain I experienced frequently, sometimes twice a day, a peculiar sensation around the waist line—not a pain but a tightness. A feeling as if my trousers band was entirely too tight, or as if a band about two inches wide was laced tightly about my waist. Since then I have a deep sense of sympathy for infants whose fond mothers so tightly compress their little abdomens with the flannel band so commonly used. This symptom, while not strictly a pain, gave me quite as much distress as did the actual pain.

During the last year of what I now call my pain period, my eyesight gradually became poorer. At first I was compelled to cease reading at night then I noticed a decided decrease in visual power also in the daytime. At this time the ophthalmologist discovered that I had what he called atrophy of the optic nerves. Treatment for this



condition proved useless and I became totally blind about ten years after the onset of the pains.

About the time my eyesight began to fail I noticed an uncertainty in my gait when I attempted to walk about after dark. I did not seem to be able to control the muscles of my legs in consequence of which I was unable to properly place my feet while walking and frequently stumbled and staggered. I soon found I could walk much better when I could watch the disposition of my feet. At one of my visits to my physician he discovered I could not stand erect with my feet together and my eyes closed and as he expressed it "my knee jerk was lost." The difficulty in accurately controlling the movements of my legs gradually increased and affected my arms and hands to a slight degree so that I was clumsy in buttoning my clothes. The "leg trouble" progressed until now I am unable to walk and spend my days in a wheel chair.

With the exception of the care of several bed sores I am fairly comfortable at this time.

Hoping this information is what you desire, I am,

Yours sincerely,

D. E. B.

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## EDITORIAL

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### THE LEGISLATIVE COMMITTEE.

Our present Legislative Committee, of which Drs. C. R. Day and J. Q. Newell, Oklahoma City, and John W. Duke, Guthrie, are active members and in control of the local situation in Oklahoma City are endeavoring by every means, energy and intelligence can suggest to arouse interest over the state in the individual physician and trying to arouse him to the necessity of promptly answering correspondence and cooperating in the work of securing proper legislation. We should not forget that these gentlemen have undertaken a very thankless task and one having many worries and responsibilities with no pay roll to even partially recompense them for the time involved and loss of time from their work. We should promptly assist them whenever they request assistance and any suggestions as to what should be done will be welcomed by them and promptly considered.

It is useless for the individual physician to go around the country with his own ideas wrapped up under his arm or go hammering about the legislature with a bill asking its passage and even expect to ever hear of anything like it being enacted into law; our only hope is in unity of ideas and concert of action. It is useless to feel discouraged because local conditions as to the practice of medicine and sanitary laws do not meet with your approval, they are not remedied in a

day or even in many days and years. Constructive legislation and legislation for the betterment of the people is always slow of enactment; you have only to recall that an intelligent body as is our National Congress, backed by platform declarations of all political parties were years in passing the Food and Drugs Act and that after its passage many of its vital parts were emasculated by hostile interests or technical court decisions until what was once thought to be a very good law has become farcical in spots. Just remember all these and do your own duty; lift your voice whenever opportunity arises for improvement in what you believe to be defective, but if you expect your work to bear fruit while you are alive to see the results you must give here and take there and square your ideas and wishes with those of others who also think they should be heard.

This Committee has before it all the attempts, and failures of the past; it is familiar with about what may be expected in the end and just how far to go with their demands, but an individual may take up weeks of time in discovering what they already know and have settled as impossible of accomplishment. Aside from this aspect of the matter the Committee is the official spokesman for the Association and you should aid it and if you have anything to say, say it through the proper and ethical channels, but above all things give them prompt aid and assistance whenever you can and whether asked for or not.

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### OPHTHALMIA NEONOTORUM.

The toll exacted each year by Ophthalmia Neonotorum cannot be estimated except in a most inaccurate manner and figures as to the cause of blindness are inexact on account of the varying regulations of the different states requiring them; this variation going all the way from rather strict reporting to none whatever.

In Oklahoma it has been suggested that each birth report blank have a space on which the physician be required to state what steps if any were taken for the prevention or prophylactic treatment of infections of the eyes of the newborn, and it would seem that this would do considerable indirect good by calling the attention of the attending physician or midwife to the necessity for prophylactic treatment, a step very well known to be more often honored in the breach than in the observance.

It is indeed a reflection on an attendant to have to call his or her attention to the matter, but there is no doubt that a large percentage of babies have no treatment in this respect or if they are treated only when infection has occurred and it has been noticed on account of the gravity of the disease.

A resume of the different methods used in different institutions throughout the United States was recently cast by a Committee of

the American Medical Association and the findings of this Committee were that the treatment in a vast majority of cases consisted in simple boric solution washes, a treatment certainly better than none and resulting in much good, but still questionable in the face of a possible Neisserian infection that may be controlled in most cases by the method of Crede, now too well known to require more description than mere mention.

This will and does prevent infected eyes in the newborn. Infected eyes in the newborn lead to blindness or defective vision often, all of which may be prevented by a simple instillation of a weak solution of silver at birth.

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### **"CROUP," MEMBRANOUS CROUP AND DIPHTHERIA.**

The gravest infraction the public and health officers have to contend with, and one that causes more woe and danger to the people and especially to helpless infants and children is the pernicious habit some physicians have fallen into of either calling a suspicious sore throat, croup or membranous croup and declaring that it is not diphtheria and therefore antitoxin is not necessary—this condition, where it does exist, is of more danger than the questions involved in the eye cases for the attendants are not warned of danger by the mild words croup or membranous croup and go about in fancied security with a probability of becoming victims themselves or carriers to other innocent people.

A diagnosis of membranous croup, is to all practical purposes a diagnosis of diphtheria and a physician who holds back insisting that the case is membranous croup and not diphtheria is a menace to the community in which he lives. The term "membranous croup" has well been termed by writers of ability an "unfortunate" name and "true Croup" is given the same classification; a writer and recognized authority, Charles G. Kerley, says that he has never seen but one case of non-membranous croup requiring intubation, while Anders states that "croup" is a synonym for diphtheria and clearly labels membranous croup as laryngeal diphtheria.

It is regrettable that there should be hair splitting over such a dangerous matter and usually at a time when every moment of delay spells disaster to the patient and to the physician; and it is also gratifying that this attitude is assumed by such a small minority of the profession. If the contention was over anything else there would be less chance for damage resulting, but unfortunately it is raised at a time often of panic and sometimes where the mention of antitoxin conjures visions of death to the minds of the parents. It is unfortunate that they are, in their ignorance and helplessness, in the clutches of an attendant more culpable and guilty than mere words can portray.

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## PERSONAL NEWS OVER THE STATE.

Dr. Horace Reed of Oklahoma City announces his permanent location as 622 State National Bank Building and that his practice is limited to surgery and surgical diagnosis.

Dr. L. F. Watson, Oklahoma City, has been doing some work in the East and taking in the clinics of Crile of Cleveland.

The Garfield County Medical Society announces the following committees for the annual meeting to be held in Enid May 13, 14 and 15th. On General Arrangements, Drs. Frank P. Davis, Chairman; L. W. Cotton, J. H. Barnes and Geo. A. Boyle. Reception, Drs. S. N. Mayberry, W. A. Aitken, W. H. McKenzie, W. E. Lamerton, E. D. Mayberry, Julian Field, and W. L. Kendall. On Finance, H. B. McKenzie, J. M. Cooper and J. W. Baker.

Dr. C. E. Frost of Duncan has been appointed by his county society reporter for the year 1913. In his first communication Dr. Frost pays a glowing tribute to the profession generally of his county and their methods of carrying on their work. He states that the county has thirty-six physicians, nearly all of them regulars and that the esprit de corps of the profession is very high all of which is due to cooperation and study on the part of the rank and file.

## COUNTY MEDICAL SOCIETIES.

### ALFALFA.

The Alfalfa County Society held its annual election in Cherokee, January 1, and elected T. A. Rhodes, Goltry, President; R. E. Bartlett, Aline, Vice-President; R. W. Pence, Jet, Secretary-Treasurer; Censor for three years, J. H. Medaris, Helena; Delegate, Z. J. Clark, Cherokee; Alternate, H. A. Lile, Aline.

A scientific program was also carried out and consisted of the following papers: "Uterine Hemorrhage," R. E. Bartlett; "Diverticulum of Oesophagus," H. A. Lile. Dr. Pence made a secondary report on the pathological findings in a case of Removal of a Sarcomatous Kidney.

Drs. R. B. Kershaw, Lambert and L. M. Gamme, Byron, were the newly elected members.

### BECKHAM.

Elected Mrs. J. M. McComas, Elk City, President; J. E. Warford, Erick, Vice-President; R. C. McCreery, Erick, Secretary; Censors, Drs. C. W. Tedrowe and J. E. Standifer, Elk City.



## CADDO.

Elected P. L. McClure, Ft. Cobb, President; Geo. W. Westermeier, Anadarko, Vice-President; Chas. R. Hume, Anadarko, Secretary-Treasurer; Censor, Dr. R. W. Williams and P. H. Anderson, Anadarko.

## CLEVELAND.

Elected C. S. Bobo, Norman, President; E. A. Thurlow, Vice-President; Gayfree Ellison, Secretary-Treasurer; Censor, Walter L. Capshaw; Delegate, D. W. Griffin, all of Norman.

## COMANCHE.

President, E. B. Mitchell; Vice-President, W. B. Mead; Secretary, L. T. Gooch; E. B. Dunlap, E. Meeker and J. Malcolm, Censors; J. C. Johnston, Delegate.

## CARTER.

J. C. McNees, President; F. P. vonKellar, Vice-President; Robt. H. Henry, Secretary; Walter Hardy, Censor, all of Ardmore.

## GRADY.

President, Walter Penquite, Chickasha; Vice-President, R. P. Tye, Chickasha, and L. H. Winborn, Tuttle; Secretary-Treasurer, Martha Bledsoe; Censors, R. J. Baze, A. B. Leeds and W. H. Cook, Chickasha; Delegates, Drs. Penquite and Ambrister.

## HUGHES.

President, J. W. Lowe; Vice-President, A. M. Butts; Secretary, A. G. Hughey, Holdenville; Censor, C. C. Standridge, Citra.

## JACKSON.

President, S. P. Rawls; Vice-President, C. C. Spears; Secretary-Treasurer, R. H. Fox; Delegate, S. P. Strother, all of Altus. Censors, D. E. Wilson, Elmer; W. H. Clarkson, Blair; S. H. Landrum, Altus.

## LEFLORE.

President, M. O. Moore, Braden; W. O. Hartshorne, Spiro, Vice-President; J. H. Harber, Second Vice-President, Cameron; Secretary-Treasurer, R. L. Morrison, Poteau; Censors, M. Plumlee and J. M. Bolger; Delegate, R. L. Morrison.

## OSAGE.

President, K. L. Colley, Bigheart; Vice-President, Divonis Whar-ton, Pawhuska; Secretary, Benj. Skinner, Pawhuska; Censors, G. W. Goss, Pawhuska, R. A. Byrd, Foraker.

## PONTOTOC.

President, W. D. Faust, Ada; Vice-President, J. L. Jeffress, Roff; Secretary-Treasurer, Isham L. Cummings, Ada; C. L. Orr, Roff; S.

P. Ross and R. T. Castleberry, Ada, Censors; Delegate, C. L. LaRue, Francis.

#### SEMINOLE.

President, J. N. Harber, Seminole; Vice-President, W. R. Black, Little; Secretary, M. M. Turlington, Seminole.

#### STEPHENS.

R. L. Montgomery, Marlow, President; D. Long, Duncan, Vice-President; Henry A. Conger, Duncan, Secretary; D. M. Montgomery, Marlow, and B. J. Plunkett and H. C. Frie, Duncan, Censors.

#### TULSA.

President, W. E. Wright; Vice-President, W. W. Brodie; Secretary, Paul R. Brown; Censor, E. L. Cohenour; Delegates, W. Albert Cook and Ross Grossheart, all of Tulsa.

#### WAGONER.

President, F. W. Smith; Secretary, J. L. Reich; Delegate, T. J. Shinn, all of Wagoner.

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### THE SEVENTH DISTRICT MEDICAL SOCIETY.

Dr. P. P. Nesbitt, Councillor for the Seventh Councillor District, organized this district January 28. About fifty physicians from various places were present and participated in the election of officers and program.

W. A. Tolleson, Eufaula, one of the active men of the District for many years, was elected president and A. B. Montgomery, Muskogee, secretary. An interesting and able program was carried out, consisting of the following papers: "Exophthalmic Goiter, Its Medical and Surgical Treatment," V. Berry; "Typhoid Fever," J. H. McCullough; "The Microscope, Its Value to the General Practitioner," J. L. Reich; "Arteriosclerosis," W. G. Little; "Surgical Conditions of the Kidney," J. Hutchings White; "What Shall We Expect of Medicine?" C. W. Heitzman; "Display of Radiographs of Fractures and Dislocations, M. M. Roland, Muskogee.

Dr. H. T. Ballantine, retiring president of the Muskogee County Society, tendered the organization a smoker in the rooms of the Commercial Club after the meeting was concluded.

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### FEDERATION OF STATE MEDICAL BOARDS.

The Federation of State Medical Boards will hold its annual meeting at the Congress Hotel, Chicago, on Tuesday, February 25, 1913.

Essayists, eminently qualified, will prepare papers upon the following subjects:—

"Is Universal Reciprocity to be Desired?"

"Should Medical Boards Require One or More Years of College Work Preliminary to the Study of Medicine?"

"Rules and Regulations Governing Examinations for Medical Licensure."

"Qualification of Examiners."

“What Fee Should be Required for the Examination?”

“Benefit of Having a Single Federation of State Medical Boards and the Method of State Board Record Keeping.”

“Means of Keeping Politics out of State Board Affairs.”

These topics are all of practical and vital interest to medical colleges, medical examining boards, the profession at large and the public.

Those contributing the papers on these subjects come with years of experience and no medical board can afford not to be represented. An earnest and cordial invitation to this meeting is extended to all members of state Medical Examining and Licensing Boards, teachers in medical school, colleges and universities, delegates to the Council on Medical Education of the A. M. A., to the Association of American Medical Colleges and to all others interested in securing the best results in medical education and legislation.

The officers of the Federation are Arthur B. Brown, M. D., President, New Orleans; George H. Matson, M. D., Secretary-Treasurer, Columbus (State House), Ohio; James A. Duncan, M. D., Chairman Executive Committee, Toledo.

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### DIABETES-MELLITUS.

I am undertaking an exhaustive research into pathology, etiology and dieto-therapy of Diabetes Mellitus. I am very anxious to hear from every physician in the United States who has a case under treatment, or who has had any experience in the treatment of this malady. Von Noorden says “the best treatment for the diabetic is the *food* containing the *greatest* amount of *starch* which the patient can bear without harm.” If any physician who reads this has similar or contrary experience, and would take the trouble to write me, I would esteem it a special privilege to hear from him, if only a postal card,

Kindly address William E. Fitch, M. D., 355 W. 145th St. New York City.

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### NEW BOOKS

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. Lee, A. M., M. D., Professor of Obstetrics at the Northwestern University Medical School. Large Octavo of 1060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London. W. B. Saunders Company, 1913. Cloth, \$8.00 net; Half Marocco, \$9.50.

This work is one of the most beautiful from the standpoint of plates and cuts ever produced in a single volume book of this character. The author states that some eight years were required by the artists to bring the book to its high state of perfection; this statement

is well borne out when the great number of original drawings are noted.

The volume is divided into four parts: The Physiology of Pregnancy, Labor and the Puerperium; The Conduct of Pregnancy Labor and the Puerperium; The Pathology of Pregnancy, Labor and the Puerperium; and Operative Obstetrics.

The less important matter of the work has been placed in smaller type to limit the work to a single volume, which otherwise would necessitate two.

DeLee has long been one of the favorite obstetricians of the country, has been an indefatigable worker and teacher; his wide experience in the latter field in the teaching of nurses, students and physicians entitles him to the high rank which he has attained, and this work from his hands will receive an immediate recognition which will place it among the best authorities of obstetrical work for the student and practitioner.

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**SKIN GRAFTING. FOR SURGEONS AND GENERAL PRACTITIONERS.** By Leonard Freeman, B. S., M. A., M. D., Professor of Surgery in the Medical Department of the University of Colorado, Surgeon to St. Joseph's Hospital, The National Jewish Hospital, and the City Hospital, Denver, Colorado. With 24 illustrations, Cloth 139 pages. Price \$1.50. C. V. Mosby Company, St. Louis, Mo.

This is a splendid little monograph on the science of skin grafting and the author deserves commendation for the considerable amount of work and investigation entailed by its preparation and its presence will be an addition of merit to the shelves of the surgeon.

The illustrations are closely connected with and applicable to the subjects under consideration and are clear and plain to the reader.

The author has given consideration to the many methods deserving notice, the technique or operations, preparation and aftercare of the patient.

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**E. MERCK'S' ANNUAL REPORT. OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS.** Volume XXV., paper, 508 pages, for gratuitous distribution on request. Published by E. Merck Chemical Works, Darmstadt, 1912.

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**SURGICAL CLINICS OF JOHN B. MURPHY, M. D., (VOLUME I., NUMBER VI., DECEMBER.** The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume I. Number VI. (December.) Octavo of 153 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth \$12.00.



This number of the clinics bears the stamp of the original high class of its predecessors and contains the usual number of excellent talks by Murphy as he only can make them. The number is well illustrated and as an innovation contains a short talk on the cancer problem by Dr. Bastianelli of Rome, Italy, who visited the clinics some time since, and remarks by Albert Caan, M. D., Heidelberg, on the improvements in the treatment of malignant tumors with radioactive substances. The volume also contains the usual amount of bone and plastic work in which Murphy so greatly excels.

### Report of Examination Before the Oklahoma State Board of Medical Examiners, Held at Oklahoma City, January 14, 15, 1913.

NAME	ADDRESS	COLLEGE	DATE OF GRAD.	SCHOOL OF PRAC.	PER CENT
Clara L. Case	Atoka	S. S. Still.	1-26-'04	O.	77
Daniel Hunt	Tulsa	Jefferson Med.	6- 3-'12	R.	82
Hubert W. Callahan	Garden City, Kan.	Chicago, P. & S.	6- 6-'11	R.	85
John L. Riley	Henryetta	Univ. of Ark.	5-10-'12	R.	70
H. A. Berry	Elk City	Rush Med. Col.	5-27-'96	R.	76
Stanley A. Ferrell	Widner, Ark.	Memphis Hosp. Med. Col.	5-16-'12	R.	74
John L. Plumlee	Poteau	Univ. of Ark.	5-10-'12	R.	71
Chas. A. Nafus	Red Oak, Tex.	Hahneman Med. Col. (K. C.)	5-16-'10	H.	71

The following failed:

College M. & S., Chicago	4-27-'03	P. M.	54
Memphis Hospital Med. Col.	5-18-'11	R.	66
Barnes Med. Col.	5- 3-'05	R.	76*
Meharry Med. Col.	5- 8-'09	R.	69

\* Fell below 50 per cent. in one branch.

The following were licensed by reciprocity:

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U. C. Boone	Ft. Worth, Tex.	Tulane	1898	Texas
Wm. J. Wilkin	Foster, Okla.	Ky. School of Med.	1876	Texas
Hiram H. Hensley	Lawton, Okla.	Louisville Med. Col.	1906	Kentucky

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Address all communications to the Secretary.

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# THE JOURNAL

*of the*



## Oklahoma State Medical Association.

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No. 10

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA

### THE FAMILY PHYSICIAN AND THE INSANE PATIENT.

Dr. D. W. GRIFFIN, Norman, Oklahoma.

I am glad to have this opportunity of coming before the general session of our state society with a paper on a subject of such vital importance as the relationship of the family physician to the insane patient. It is of double importance to we who have to do with the hospital care of your insane. It is the family physician whose fortune it is to see the mentally sick person first. And it is to the family physician I wish more especially to address myself.

How many of you as physicians begin to realize the number of insane we now have in the state of Oklahoma. Say nothing of the entire United States. Then again, do you, as taxpayers think of the enormous expense of caring for the mentally deranged?

To give you an idea, we have in Oklahoma alone nearly 2,000 insane, and this number increasing at an enormous rate; which will in my opinion in the next ten years increase this number to approximately 4,000. It would hardly be worth our while to figure what it costs the state of Oklahoma in the way of public taxation to care for its insane for the next ten years. To start with, we should have an equipment to cost at least \$2,000,000, afterwards a maintenance appropriation of about \$200 per capita per annum.



I figure that the state of New York perhaps cares for its insane at about as low per capita cost as any state in the Union who choose to give their patients first-class hospital care. At the present time New York is caring for its 40,000 insane at an average rate of \$200 per capita.

Statistics further go to show that one-sixth of the taxation of the state of New York is for the support of its insane.

It will doubtless surprise most of you to know that we have in the United States a few more than 200,000 insane. These unfortunates alone, if gathered together would make up a city equal in size to that of many of our large American cities.

The total annual cost of caring for the insane at this time is considerably over \$50,000,000 per year. It is beyond the power of the human mind to count in figures the enormous cost of insanity to the human race. If we could recall the distress of one family where there is a case of insanity, the suffering of the patient, the anxiety of the friends, neighbors, and the loss of earning power of the member—the children cut off from the proper support, left to grow in ignorance, and thereby crippled for life. If we can appreciate some of these facts, we can alone with them begin to grasp in a small way the cost of this disease. There is no process whereby you can calculate the loss in one single case.

After all this I am sure that we all believe it is time for us to examine ourselves as physicians to find out if we have the proper recognition of insanity as a disease.

It is a great misfortune to the medical profession and the mentally sick that our medical schools in the past have given the study of mental diseases so little attention. In the past, medical training has been largely directly opposed to the proper consideration of mental conditions. What little instruction the student has had along these lines, it has been to teach him to believe that mental diseases are brought about by disorders of the various internal organs. Thus some are made to believe that there should be a distinction between mental troubles, which must be dealt with by the specialist on mental and nervous diseases, and the disease which must be dealt with by the general practitioner. If we had to confine ourselves to this theory and limited to the consideration of only those conditions which were directly traceable primarily to the diseased condition of the brain itself, we would be greatly handicapped.

The family physician is not alone to blame for his seeming lack of knowledge of psychiatry. I believe that the state hospital officials themselves are particularly to blame for the lack of interest along these lines. They have been content to remain in the old rut long enough. I think it is time for them to get out and begin an active campaign among our physicians. Why would it not be a good idea for each county society in making up its next year's program to give

one place for a practical subject pertaining to insanity, and invite someone either connected with our state or private hospitals to prepare a paper for the society? The good that would come from a movement of this kind would surprise you. We would all soon become more familiar with the subject of mental diseases. The family physician would have an opportunity to learn that there are many different forms of insanity, and that these different forms vary in degree as well as in severity. We would then appreciate what science is trying to do for this class of sick people. We would be able to more readily recognize some of the most common etiological factors.

Etiologically we would learn to emphasize the importance of alcohol and syphilis as well as some others. Syphilis is one of the greatest social problems which now confronts us. We who have to do with the care and treatment of the insane perhaps are made to see it in a stronger light than any one else. We know, beyond a doubt, that it is the direct cause for one of the greatest forms of insanity we have to deal with. It is known as paresis, and is incurable by any means now known to the medical profession. Those afflicted with it suffer gradual mental decay. It affects the business man in the very midst of life, at the very time when his social and business attainments are at the very highest. Just when he is beginning to rear his young family, when all is happiness, when life is the fullest. I say it is just at this period when he is cut off, and so often the disease is so insidious in its onset, the symptoms show up so slowly, that the great danger is not recognized by his business associates until business and financial wreckage comes, not until he fails in that railroad deal, not until every dollar is gone, all that he has, his friends, family and all are gone.

It is hard to begin to estimate the great ravages syphilis is making on the young men of this generation, say nothing of its indirect effect on the offspring from the syphilitic father or mother. "Oh," some one may say, "We now have a new remedy of which one dose is sufficient to produce a cure." Now don't misunderstand me, I am not going to say that 606 is not a most wonderful discovery in the science of medicine. I would show my ignorance to do such a thing, but don't let it deceive you. I hope I will live long enough to see what will become of that poor fellow who has syphilis today, tomorrow given one dose of 606 and pronounced cured. I say I hope to live long enough to see if this poor fellow escapes paresis. It is by the best authorities on nervous and mental diseases questioned whether once syphilis attacks the brain, if it ever leaves the cerebrum entirely sound.

Every man, woman, boy, and girl should know something about this great social evil. We compel our railroads to put out danger signals at every crossing to warn the traveling public against every possible danger. We hear much in these days about the conservation

of natural resources, of the preservation of the forest and waterways, of timber lands and coal deposits. But what possible meaning can all this movement have if it is our intention to go on and not warn our young of such dangerous diseases as syphilis? You may legislate until the end of time and you will not stop it. Well, then, what must be done? I will tell you what I think is the first and best thing for us to do, and that is to properly educate our children. Why should not every boy know that when he enters a resort for immoral purposes he right there stands in danger of one of the most incurable forms of insanity we have to deal with, one that is most widely destructive in its nature. If smallpox lurked within that resort you would see tacked on the outside a danger signal, and yet I claim if you have one syphilitic woman in that "dive" you have a hundred times more dangerous disease than smallpox. Smallpox pits the skin; syphilis is a little finer in its choice and pits that all vital spot, the brain. That's the difference. We believe that over every immoral dive there should be written: "Incurable Insanity Can Be Contracted Here."

Alcohol, as you all know, acts as a poison to the nervous system. Even in small doses, the scientists tell us, it acts as a narcotic which paralyzes the brain cortex. We know that it, like syphilis, is the direct cause of certain forms of insanity; no mistake about that. Fully 30 per cent of the men and 10 per cent of the women admitted to our state hospital are suffering from conditions which are either directly or indirectly due to alcohol. So marked is its effect on the brain and nervous system that it is often the cause for mental disease when least suspected.

It is not possible for any man to attain to the highest possible mental attainments and be a user of alcohol. It destroys the proper development of the brain. Say nothing of the danger to his offspring. Every man has a right to bring into this world strong minded children, as well as the state has a right to expect this, but yet, how can this be possible with the alcoholic? Our alcoholic fathers and mothers, like the syphilitic, are constantly bringing into the world recruits for our institution for the feeble minded, the institution for the blind, the institution for the epileptic, or correctional institution, etc. Now, I say, is this a square deal? We who pay the bills do not think so, and yet it is allowed to go unnoticed.

I am not unmindful of other physical diseases which have a strong bearing on the causation of insanity. Such diseases as typhoid fever, pneumonia, lagrippe, diphtheria, etc. These and many others too numerous to mention have a great deal to do with insanity. A person suffering from any one of these diseases should have good, careful nursing, skilled medical attention, pleasant surroundings during convalescence.



We often hear of overwork being a strong factor in insanity. I stand here to deny that such is true; it is only a factor to the extent of worry, loss of sleep, unhealthy hygienic surroundings, etc.

Before leaving this part of my subject I would like, if time would permit, to take up with you a few great mental causes of insanities; they are most important. Of greatest importance is the question of moral hygiene, constitutional make-up, sexual life, etc. The physician must learn to be able to recognize personalities which predispose to the development of the functional psychosis, especially dementia praecox; correction of abnormal tendencies by proper training and education of our people. Not only should our physicians be trained along these lines, but also should our school teachers have a thorough training in all the fundamentals of psychiatry. If such were the case, many of our dementia praecox and paranoid cases would be detected early enough to save some of our bright boys and girls.

Now I have a few things in mind I wish to say which comes particularly close home to all those who have to do with our state and private hospitals. We have in this state, as well as many others, —some very serious defects in the laws which pertain to the insane.

Do you know that in this enlightened day and age of ours we are yet largely laboring under old English laws established several hundred years ago, and which need our attention, not only as physicians alone, but the laymen should be deeply interested in some amendments to our present legal mode of committing patients to our state hospital. How many of you begin to realize what would happen to you today if while walking down one of our crowded streets and overtaken by a street car, automobile, or something of the kind, knocked down, your head thrown against the pavement, your brain injured, and you become insane? I say do you know all that would happen to you before you could be taken to any one of your state hospitals? I doubt if we ever give it much thought. Well, the first thing would be the gathering of a crowd, the ambulance called, perhaps taken to your home, the physician summoned: he would find that you were really mentally sick and that you should have as early as possible real hospital care. And to gain admission to your state hospital, your physician would first have to go to your county judge, secure a warrant of commitment, take you before a judge and jury, try you as a criminal, after trial place you in the hands of your county sheriff for your journey to the hospital. More than likely the sheriff, if he saw fit, would place on your arms iron handcuffs and chains on your ankles, and march you along as if you were a prisoner on your way to the state prison. Again, when you had had trial and were turned over to the officers for safe deliverance to the state hospital, suppose that the sheriff and his deputies were pressed for time in other ways. What then would be done with you, sick as you are?



Let us see. The jail is the only available place. You would be too noisy for the city hospital, and the neighbors would all be afraid of the "CRAZY." So you would be placed in a felon's cell, there to suffer all the tortures of prison life, maybe to go without proper food, breathe foul air, and come out neglected in many ways.

This is not all the fault of the law, but we as physicians are to blame in many cases. After your patient has had trial see that no delays are allowed, see that he is sent away in company with a humane officer. One that will not beat, handcuff, and otherwise injure your patient as some do. In the last two years I have known of two cases, one a lady and the other a man, who actually died before reaching the hospital. Each one of these should have been accompanied by a physician or a nurse. Most any nurse can control the average patient sent to your state hospitals.

Now some one might ask the question: "What are your remedies for these things?" Well, in the first place, we should have in our state a state board of lunacy composed of at least one expert physician, and the duty of this commission should be to pass on all cases and see that patients are given a proper examination, and if found fit subjects for our hospitals, to also see that they were conducted to the hospital in the proper way. Except in very doubtful cases where the commission thought best, should an insane person be given a trial before a jury. I believe I have seen the last chance for recovery taken away from a great many patients by our present mode of committing them. When a man or woman is mentally sick, they should receive the very best care which is possible for us to give.

There is need for greater care on the part of the physician in making examination of the patients, prior to commitment. In this state we have in each county a board composed of the county judge, a lawyer and a physician. In nearly all cases the physician is looked upon by the other two members for the examination, and he therefore has it largely under his direct control. Now then, the proper examination of the patient largely depends on the fitness of the physician appointed. No certain physician is at all times delegated for this purpose, so it therefore behooves all of us to be a little more up on the subject of mental and nervous diseases.

I want to plead for a more accurate examination of patients before being sent away. You have before you the proper blanks to guide you, and you should see that each blank is correctly made out. See that the proper signatures are made, the county seal attached where the law requires, etc. All this may seem unnecessary, but it is law, and without these things the papers at times have to be returned for correction, hence delays.

In making out the interrogatories see that each question is fully and correctly answered. Now, for instance, these two questions are

asked: "Has suicide ever been attempted? If so, in what way?" And very frequently they are both answered as one question. The occupation of the patient we wish to know. If bank clerk, say so, and do not say banker; if grocery clerk say so, and not merchant. We should know the difference between the landlady and her maid. It is true they are both in a sense housekeepers, but there is a distinction and it is important to make it. Where the question is asked as to the cause of the mental disease, it is of the greatest importance that you be very careful in answering this question. By so doing you greatly aid those who have the care of the patient while in the hospital. You would be surprised beyond measure at the laxness along this line. Time and again we have had people come to our hospital who, if female, the cause assigned to female trouble, or disease of the ovaries, and upon examination no female or ovarium diseases are revealed. And so often a boy of 14 or 15 years of age whose mental disorder is assigned to masturbation, when in fact he is a sufferer from that very frequent form of insanity known as dementia praecox. Not long since we had committed to our institution a lady patient whose alleged cause of insanity was disease of the female organs, when upon examination nothing of the kind was revealed, but on the other hand we found that she was a married lady of thirty-eight years of age, the mother of nine children, did all her housework, washing and ironing for the whole family, milked eleven head of cows twice a day, besides helped her husband in the field all her spare time, and according to her own story had not visited her neighboring town for a period of ten years. Here was simply a case of exhaustive psychosis superinduced by hard work, together with a brute for a husband. A few weeks rest with proper food and relaxation brought about a cure of all female disease in her case.

No longer than two years ago there was committed to our institution a man in the delirium of typhoid; came to us with a temperature and died shortly afterwards. This patient should never have been sent away.

I only bring to your mind these things in order to try to arouse a more careful study of all cases.

We should all study more closely the difference in the meaning of a delusion, hallucination and an illusion.

Now in conclusion let me plead with you as family physicians for the establishment of a closer relationship between you as physicians and our state hospitals. How many of you have ever been through either of our state hospitals? I wish I could say or do something which would arouse a more co-operative movement between the physician and our state hospitals. So many of us absolutely lose sight of our patient as soon as he enters the hospital. This can't be said of our conduct toward that operative case we

send away. In the latter case many of us make daily inquiry, while with the poor, mentally sick man it is different. As soon as he is taken away, nine times out of ten, he is forgotten by all except a few relatives.

Now this is all wrong; you should, when possible, visit that patient while in the hospital. Go to see him and consult with the hospital staff. They would welcome you, and you would be in a position to offer many valuable suggestions. You are in possession of all the facts and condition of the patient. You would at once be able to aid the staff in making out a correct diagnosis in almost every case, and thereby help to restore your patient. I am daily begging everybody, club lady, lawyer, doctor, farmer, state officials, and all to visit these state institutions, to see for themselves how the work is being carried on. This would in a short time drive away that old antique horror of these hospitals.

Not but a few days ago I had the great pleasure of a visit from all the visiting members to Norman, of the fifth district of the Ladies' Clubs, and some of them remarked to me that they were surprised. They did not think a visit of this kind would be allowed. But when I assured them that I had been begging for the past two years for these visits, they then began to see the matter in a different light. I soon explained to them that our work was in direct line with the work of the national organization. Also one of the visitors asked me if I ever allowed a visit to those who were "wild." And when I pointed out to her that she there stood in the very midst of the most active cases in the institution, she almost became alarmed and would scarcely believe me. Most of all those about her were quiet and in bed. She was completely taken off her feet. She could not believe that I was telling her the truth.

When the people begin to look on our state institutions for the insane as places for those who are actually sick, and that the patients are sick, not "crazy," they will then begin to lose sight of those old ideas of "Asylum Horrors." No one is in position to do greater good along these lines than the family physician. So let me beg of you to set apart one day of this year to visit one or more of these institutions.

Dr. Mahr, your state commissioner of health, foresaw the great good of a visit of this kind and had nearly every local county health officer of the state visit our institution some weeks ago, and many of them are here today and can testify as to the amount of good they got out of the visit.

I thank you.

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#### DISCUSSION.

DR. J. M. BYRUM, Shawnee, Oklahoma.

In the first place, this is a paper the publication of which should

not be confined to our medical society, but should be in the press over the state. It will assist in getting an acquaintance established over the state and will aid more to dissipate the idea that an insane patient is a criminal. I have had the pleasure of visiting the institution at Norman. It is one of the best clinics that I have ever attended. It is absolutely necessary to have a clinic. The best clinic I have ever seen is at Norman. I felt that I should have a bodyguard, but pretty soon found they were not criminals, but sick people. I would urge every doctor in the state to at least visit the institution once a year, for the welfare of those who are not there as well as those who are,—to establishing an acquaintance and familiarity of the doctor with the conditions as they bear on the insane.

Again I would urge more publicity for this paper.

DOCTOR JENKINS, Enid, Oklahoma.

I am very much interested in that paper. I heartily endorse what the doctor who has just spoken has said about the publicity of this paper, and I want to make a motion if I can get a second, that this paper be published in the press of this state, that it be the sense of this association that this paper be published—that the secretary make request of the secular press of this state to give this paper publicity. It will do the people more good than any paper that has ever been read to this association, and will have some influence in getting the public to believe it is a sick person and not a crazy one to be locked up in jail. That idea exists in the minds of the laity at large, that the family physician is the only one who is worthy of credit, and they regard the medical profession outside their family physician as grafters. But if we can get this paper published in the public press, and each family physician to talk to his patrons at home and tell them that there is the truth in this paper, and that that is the light they ought to be regarded in, it will do more good than any paper that has been read to this association.

I notice that Doctor Griffin dwelt upon the importance of the general practitioner discovering insanity in its earliest stages. What observation I have given it myself has proven to my mind beyond the shadow of a doubt that that is when it is amenable to treatment, the earliest stages, and when it goes on and gets bad enough that the people in the community become afraid of the patient and call him crazy, it is very often beyond the reach of any medical skill restoring them to a normal condition.

DR. ROSS D. LONG, Oklahoma City, Oklahoma.

I have had some four or five years' opportunity to witness the class of cases that come before probably the largest county, in that regard, in the state, and the method of handling them is one that should have been brought before the legislature or some body that can change it long ago. Now, that it has been brought up before this



body, some action should be taken so that the legislature will modify the method of the examining body, the care of the case pending examination, the place of examination and the method of transporting the case to Norman. Dr. Griffin has given us the nucleus to work upon, and every word which he spoke should be recorded in our medical journal and also in the lay papers, as stated before. The method of conducting them, as he was discussing with me prior to this meeting, should not be by the sheriff, but by a man or woman nurse from the asylum, sent to come for the case. The case, pending the decision of the insanity board, should not be one left in the county jail, because that is the only place we have now, but should be kept in some proper ward in an institution of that county. Denver has in the Arapahoe county hospital a ward for insane cases pending a decision as to whether they are insane or not. They are not kept in a ward in the interior of some jail, to be waited on at the will of the criminals, and if the woman's ward is crowded, to be placed off in a basement somewhere. The method we are employing in Oklahoma City is not really human. Men are brought there that are really aged, senile, possibly have a heart lesion, cannot behave themselves in a general hospital; they are taken to the county jail and there kept under surveillance because of the numerous remarks made about them,—because some three or four doctors say they are insane. The record you have then is,—we cannot take them back into the general hospital, but possibly we can put them in the tubercular ward, out in the infectious part of the city hospital, but we won't guarantee that they won't get lost if they see fit to ramble around. Then again, a case comes to you and you are limited as to action as to whether they have lived in your county three months. If less than three months, you cannot act. It is then a question of referring back to the county from whence they came, as to the last residence, and what their real residence is, if you can obtain it, and you have them on your hands because of that fact. I have had one case down there that didn't know his name, didn't know where he lived or anything about it, that we had before our county society; we kept him in the county jail, and because he was better conversant upon lodge signs and things of that sort, he was given treatment and sent to a sanitarium. The county wouldn't have carried it; the insane expense is too great. They are now talking about the expense of their poor and insane every time they meet. The board should not be composed of one doctor, one lawyer and one judge. Each may be too busy to attend and your board then consists of one lawyer and a doctor, and that is inconsistent. It should be composed of two doctors, at least, even at the elimination of the attorney, and I am inclined to think the judge should be ex-officio, and not supposed to be active. The lawyers have invariably stated to me that the work of this matter rests heavily upon their shoulders. There has been covered by my talk a method of being transported after examination. The place of examination should

be more generally at home or at a hospital, not in the lobby of a jail, or if it happens to be at the court house, by three flights of stairs to the third story. Then the law covering it has got to be modified. We have at the present time such a law that it is considered three different ways by different judges.

DR. J. W. DUKE, Guthrie, Oklahoma.

First, I want to do as the balance have done, congratulate Doctor Griffin upon his most excellent paper. I don't know when I have ever heard a paper read which I have enjoyed more than I have this one. It is one of common sense. One of the main difficulties with the management of insanity in Oklahoma and all other states, with a few exceptions, is the fact that the eleemosynary institutions and particularly the insane are made political assets. As long as this is so, the insane will constitute a curse. A year or two ago when the legislature was meeting at Guthrie and these bills were pending, I was requested by the commissioner of charities of this state to appear before the committee and endeavor to urge them to make a liberal appropriation for the care, treatment and management of the insane. The chairman of that committee was a lawyer, a most splendid gentleman and an honest man, and at the present time one of the district judges of the state of Oklahoma. To offset the plea that I made for more liberal appropriations for the insane and urging that the physicians employed in these institutions should be paid commensurate with their ability and services, he stated to me that he could buy a doctor for a thousand dollars a year, and it was practically absurd to talk about paying them three or four thousand dollars a year; he had discussed the matter with the physicians of his town and learned that twelve hundred or fifteen hundred dollars a year was enough to procure a man. I then applied to the governor, and he gave me rather an indulgent smile and said: "Doctor Duke, those fellows haven't any vote." I think he thought that was conclusive and final. I withdrew.

Now, in regard to the first treatment of these insane persons in the cities of largest size in Oklahoma: they have ample means and are sufficiently able to set aside a detention ward somewhere outside the county jail. There should be a physician in charge of this ward who would visit daily, at least for a week or ten days before these people are finally sent away to a state institution, and he should study their cases and endeavor to ascertain whether or not they are suffering from some controllable disease of the nervous system, or some disorder—particularly should this be done in regard to old people, who should not be sent to the hospital.

I had the honor, through the superintendent's request, of being visiting physician to that institution, and I must say he does everything he can for the care and comfort of those people who are entrusted to his care, but he is absolutely handicapped. He hasn't suf-

ficient money to employ a sufficient number of attendants and nurses to care for these people. When you think, gentlemen, that you can put twenty-five or thirty people who are mentally insane and irresponsible for their acts into one ward and expect that one man or two men or two women will have the custody and care of that entire crowd, and keep them quiet and fed, clothed, bathe them and look after them like that many children, you can readily understand that these patients will not receive or could not receive the care they should have, and this will always be so until your legislature makes a more liberal appropriation for the care of these people, unless these institutions can be divorced from party politics, the spoils system that controls matters of that kind now.

The insane man should be treated by his family physician in these incipient stages. If he is in doubt, he should call in some one to consult with him about the management of these cases. If it is decided by the people, his neighbors, associates and business relations that he is insane, the first thing done is to notify the county judge. He calls up a lawyer. The judge and they go out and examine him and have him brought into court and have a trial. The trial is a public one and this individual is humiliated at a public trial.

DOCTOR GRIFFIN (Closing).

I feel greatly complimented. It is beyond me to express my gratitude to the gentlemen who have so kindly discussed my paper and I wish to say in conclusion that if possible for one or all of you to visit not only our institution but any other public institution in the state, it is your duty to do so. You should go to these institutions and see for yourselves what is being carried on, and you will know whether the management is carrying on its work as it should or not. And unless you go to these institutions how do you know? you don't know, unless you go. Go to see the institutions and call for their record of any patient you may have there. Go down and see your patient; read about it,—it helps us—and what I am hoping to do is to drive away from language the words "asylum" and "crazy," and I wish these two words could be eliminated.

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## THE MANAGEMENT OF UTERINE MISPLACEMENT.

DR. R. J. BAZE, Chickasha, Oklahoma.

In presenting to you this subject of uterine misplacement, I do so not from any desire to exploit any new theories or methods, but from the fact that we, so far, have not any really satisfactory methods of managing these cases. The many methods and treatments that are presented to us from time to time are in themselves satisfactory evidence of this fact. If I can bring out a discussion of this subject by presenting to you a few facts, I shall feel amply repaid for my efforts on this paper.



In discussing uterine misplacement, we have only one form that usually brings forth much attention, that is, retroversion.

The uterus is not a fixed organ in the pelvis, but under ordinary circumstances has a wide range of motion. It is not dependent on any one factor for support but is dependent on the harmonious action of all supports. The uterus is held in place by the pelvic floor, the pelvic organs, the retentive power of the abdominal cavity, and the ligaments. The forces that principally exert this retentive power are derived from the broad ligaments, the utero-sacral, the utero-vesical, and to a large extent, the round ligaments.

The uterus may be displaced as a whole by ascent, descent, anteriorly, laterally and posteriorly by torsion and inversion.

In taking these misplacements up, I shall only refer to those of anteversion and antelexion, retroversion and retroflexion. Misplacement by anteversion and antelexion usually produce very little symptoms, and if there is any pathologic disturbance, are easily corrected; it is not a true deviation but an exaggerated normal condition. Antelexion is a very common form of misplacement and is usually met with in women who have never borne children. The true nature of the cause of this has never been fully demonstrated.

The symptoms are dysmenorrhea, sterility and leukorrhea. The treatment is surgical altogether and, if properly carried out, always produces satisfactory results, except in cases of infantile uterus, and in these cases I know of no treatment that will produce any beneficial results. The operation for this condition is thorough curettment, followed by packing the uterine cavity with gauze and allowing it to remain forty-eight or sixty hours, with rest in bed for one week or more. I have always had most excellent results from this mode of treatment with proper systematic treatment and advice.

The most important of our misplacements and the one that gives more pathological disturbance is retroversion and retroflexion. The measures advocated for the relief of this condition are too numerous to mention in detail but are comprised under two heads, namely, mechanical and surgical.

In reviewing our literature, I find that the tendency of our profession during the last few years has been most altogether surgical, but I think this not altogether justifiable, from the fact that there is a great deal of prejudice amongst the laity against surgical intervention and the fact that we do get good and satisfactory results from mechanical means of treatment. I am, however, where circumstances will justify and I can get the consent of my patient, always inclined to favor surgical treatment.

The treatment by mechanical means resolves itself into removal of the cause and replacement of the uterus, keeping the uterus replaced, reduction of the size of the uterus and stimulation of its liga-



ments, general treatment and hygiene. Removal of cause consists in repairing of pelvic floor, perineum and cervix, and if there is endometritis proper measures to remove the same. Replacement of uterus is accomplished by usual methods. Keeping the uterus in place is accomplished by pessaries as this is the treatment by mechanical means. The treatment by pessaries, I know, is met by the profession with a great deal of prejudice. Why, I have never been able to understand. This aversion by the profession is brought about by our gynecological teachers who fail to teach their classes the proper and important treatment of uterine misplacement by pessaries. The great and learned Prof. R. B. Maury, of Memphis, Tenn., was the most thorough and persistent instructor in this form of treatment of any man it has been my pleasure to meet. We must always understand thoroughly what is a normal and abnormal position of the uterus, as we often have clinical abnormalities that produce no symptoms at all, of pathologic disturbance and many cases of this character do not call for treatment. It is only those cases that produce constitutional and logical disturbance that call for treatment.

The uterus is not a fixed organ in the pelvic cavity, but under ordinary normal circumstances has a wide range of motion, and furthermore, that it is not anchored by any one set of ligaments, the forces which cause it to retain its position are derived from the broad ligament, the utero-sacral ligament, the utero-vesical and, to a large extent, the round ligaments. The perineum is not a controlling or influential force in this suspensory process. It is only the combining of these several forces that the uterus is capable of maintaining its normal position. When this harmony of action is disturbed from any cause, then a displacement results, whether the causative influence be exerted on the uterus or on its several supports. I am not going into the many disturbances which these misplacements bring about, but would insist on first being certain whether the clinical symptoms presented by the patient are due to the misplacement or to some other systematic disturbance. A misplacement may cause a great deal of constitutional disturbance or the constitutional condition may cause a misplacement. Successful treatment depends a great deal on our knowledge of how much systematic disturbance is due to the dislocation. There are certain forms of mal-positions of the uterus that can only be regarded as anatomical, and not pathological in any sense of the word. There is only one form of dislocation that is beyond any means of mechanical treatment and that is the fixed and adhered uterus; there is no treatment more unsatisfactory than to try to treat a fixed, dislocated uterus mechanically. There is only one treatment for this condition and that is surgical. We must remember, however, that there are conditions where the uterus seems fixed, when in reality it is only the fundus clamped between the folds of the utero-sacral ligaments and is not fixed at all. This is where men sometimes honestly claim to have relieved the fixed uterus by mechanical means.

They simply were mistaken in existing conditions. Where this condition exists a little perseverance with local treatment and massage and persistent effort at moving the uterus, it will readily resume its normal position.

In regard to mechanical treatment with pessaries: The different forms are many, but the ones I have had most experience with and about the only ones worth mentioning are the Hodge-Smith and the ring pessary. The Hodge-Smith is as worthless as any of the rest unless moulded to fit each particular case. The ring pessary I find suits some particular cases better than any other and there is no doubt that the same results can be obtained by packing lamb's wool tampons around the cervix in a manner similar to the use of the ring pessary and continuing it for some time.

The disadvantage, however, in the tampon treatment is that it requires frequent application and a great deal of the time the patient is without any support after removing the tampon and before having another replaced, thus subjecting the uterus to the chances of resuming its former misplacement. While with the using of the soft rubber ring pessary, you reduce the misplacement and the patient can go for days without having to have it looked after, it creates no irritation and corrects the deformity. The existence of inflammation is no more contra-indication for use of pessaries than any other method of treatment. The main reason why so many physicians fail to get results from the use of pessaries, is they do not understand the principle upon which they operate. It should be remembered that the pessary does not exert its influence by making pressure against the uterus nor by distention of the vagina, while this factor aids more or less, but by leverage action upon the ligaments which make more tense the natural anchor. The pressure is exerted upon the posterior wall of the vagina in such a way as to force the cervix backward into the hollow of the sacrum and restore the fundus forward to its proper position.

I will say a few words in regard to massage in the treatment of misplacement before taking up the surgical side of the question. There is no doubt that a great deal can be done in this respect. Many years ago Brandt's massage treatment for retro-displacement gave him a reputation limited only by the bounds of civilization, for the relief of womankind. From reports of many American gynecologists who called upon him, we were informed that his methods could not be explained, he had to be seen to be appreciated and so on. It is said no other living man could get results that he did or could learn to accomplish them. Statements like these I am loathe to believe. I believe any man who gives massage treatment in an intelligent manner can get results that are satisfactory. His methods, as I understand them, were to elevate the hips well, about forty degrees, with body in a straight line to let intestines gravitate out of pelvic cavity. Then

with hips on pillows, with one hand externally above the fundus uteri, buried down to or near the sacrum and two fingers behind the cervix to lift the fundus upward, while the hand externally presses the fundus well forward on the symphysis pubes, then with the fingers in the vagina finally in front of the cervix pressing it upward and backward, being certain all this time not to produce any pain. With this massage treatment given every day for fifteen or twenty minutes each treatment and then properly supported with lamb's wool, glycerinated tampon and together with vaginal douches of large quantities of hot water, many cases will yield and give most excellent results with cessation of all symptoms.

The surgical means of securing results in these conditions of misplacements are many and varied, each author claiming their operation as the best and to meet all requirements. Many of these operations have brought about brilliant results, while others have proven signal failures. In my opinion any operation that does not take up and make taut the relaxed ligaments and cause each and every one to do its normal duty in suspending the uterus in a normal condition and keeping it there fails of its purpose and in a majority of cases will prove useless and a failure.

The operation which comes nearer meeting these requirements than any other is the combined operation of ventral suspension with shortening of round ligaments, that is the doubling of the ligaments on themselves, not cutting them. This operation has proven very successful and I have to yet find one of my cases in which the uterus has fallen back into the sacrum. I believe in a great many instances that ventral suspension alone will be successful, but in making this statement I am adverse to some of our greatest and most eminent men. Such a one as Jno. B. Deaver, who said, "I cannot but wonder why gynecologists do such an operation as ventral suspension, and that the operation of ventral suspension and fixation are out of place in the majority of instances. I have seen many cases operated on," he says, "and I never failed to find the uterus in the hollow of the sacrum six months afterward." This does not accord with my experience, however, though limited it be. I believe others can say the same.

The old and tried Alexander operation has in a great many surgeon's hands proven satisfactory and probably has stood the test of time better than any other operation today held out before us, however, I have never been impressed or satisfied with it, as it is the shortening of only one set of ligaments and throwing all suspension work on these two and throwing the uterus so out of equilibrium as to render useless the remaining sets of ligaments and supports. The same objection applies to the operation of shortening the broad ligaments by the "V" shaped incision and this objection applies to any operation that throws all weight and support on any one set of ligaments. In speaking of the Alexander, it brings to my mind what Dr. Baldy



says of it: "Of the Alexander operation it is irrational and dangerous, weakens the point in the abdominal wall which is already its weakest point, has been the cause of many hernias and in these cases leaves the patient in worse conditions than before." I have seen, however, excellent results from it and it no doubt has stood the test of time better and no doubt has more followers today than any other operation.

The Webster operation it is claimed has been successfully employed by many operators of this country. I have had very little observation and experience with it, however, the technique seems rational and no doubt if it would hold, would be useful and successful.

After properly preparing the patient it is done in the following manner: On opening the abdomen you take hold of the round ligaments about one and one-half inches from the uterus, owing to how much slack there is in the ligaments, make pressure by having assistant bring the uterus forward so that you can feel the point of the forceps pressing the broad ligament close to the uterus just under the tube and ovarian ligament, by making a slight nick over the point of the forceps, they with the round ligament can be easily thrust through, and the ligament secured by catgut suture passed through the loop where the ligament is bent upon itself in the grasp of the forceps. The forceps are then removed and the other side treated in the same way. The two loops of the round ligaments are tied together by the catgut suture, and the peritoneum is placed over the posterior surface of uterus, sufficiently scraped with the knife to cause adhesion, to which the ligaments are sutured with chromicized catgut. This is a beautiful operation though I have always had doubts about it holding and being permanent. If it is, I think it is an ideal operation. While it is a fact that each operation advised by different authorities is severely criticised by others, bespeaks for us the fact that we still have no operation that is really satisfactory and meets all requirements, and we have not yet reached a place of absolute safety and satisfactory results in these operations. It is true many of the failures are due to faulty technique, and not to the operation in fact. There are cases of retro-misplacements caused by adhesions and inflammations that can be managed in no other way except by surgical means; in these cases we should choose the operation best adapted and suited to the particular case in question. I believe the success of any of these operations depends greatly in suiting the operation to the case on hand and carrying out the technique implicitly and I have always refrained from adhering to any particular operation for these conditions. The complications which go with retro-misplacements must necessarily have appropriate consideration and treatment to get results; long standing cases accompanied by endo-metritis will require treatment by the usual methods of intra-uterine medication and when deemed necessary by eneffement and gauze packing. The supple-



mental use of pessaries after surgical operations often prove judicious and beneficial though I have no experience with them in this condition.

After all, our success depends on our ability to diagnose a case, and apply common sense practical treatment to each individual case as it is presented to us, reasoning from cause to effect, and always keeping in mind to get results, we must remove the cause and adopt such methods as will meet the individual indications present. As far as operations for retro-misplacement are concerned, that one should be adopted in each case that will bring the uterus back to its normal condition and there keep it in a natural suspension in the pelvic cavity, and the one that fulfills these requirements is the ideal operation to be chosen and adhered to.

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### **RADIUM WATER.**

ANDREW N. LERSKOV, B. S., M. D., Claremore, Oklahoma.

As I attend the meetings of the Oklahoma State Medical Association from year to year, I am frequently asked concerning the true facts and merits of the Claremore Radium Water. In order that most all the members of the medical profession, as the membership of the state society comprise the cream of the profession, may know the exact status regarding this water and as I have been requested by several of my friends among the practitioners, not acquainted or informed about its uses, to write an article for this Journal on this subject, and in response to this request I will feebly yet conscientiously attempt to cull out all the minor and insignificant details and report its practical uses and "disuses." It is a very strong mineral water and its name "Radium" is a fanciful term or nickname its promoters gave it in its infancy, not because of its ability to show any radio-activity but to distinguish it from the many other mineral waters. It was discovered in 1903 while some parties were drilling for oil at the time that boom was first invading Oklahoma. At a depth of 1600 feet a strong vein of artesian water was found with such a powerful pressure that it forced the water several feet above the surface of the ground. Nothing was known then of any virtue or medicinal value it may or would produce and the well was temporarily abandoned. It remained idle for quite awhile only as a curiosity and a nuisance. Some damage suits were threatened on the part of adjacent property owners on account of the water running over their yards and grass as it certainly destroys and kills all forms of vegetation. An old bachelor living near the well began to use it as a treatment for an old chronic varicose ulcer of the leg with excellent results. Others followed in the same footsteps for various troubles. The same result and from that time several large sanitariums or bath houses have been erected. I have no mo-

tive of advertising the water or town whatever in writing this article, but the attempt is made with the hope that I may be permitted to be of some benefit in two ways, namely: (1) That it will inform the family physician to a certain extent that he may be able to advise his patient or friend to avoid the use of the water when it is contraindicated; and, (2) To advise its uses when indicated and in the proper way, as people are using it and will probably continue to do so.

One will readily see from the following chemical composition that it is a sulpho-saline  $H_2O$  highly charged with  $H_2S$  gas.

## CHEMICAL ANALYSIS.

Name.	Grains Per Gallon.
Ferri Carbonate .....	1.184
Calcium Carbonate .....	21.888
Magnesium Carbonate .....	1.939
Lithium Chloride ....	Trace
Magnesium Chloride .....	110.469
Calcium Chloride .....	236.944
Sodium Chloride .....	1833.080
Potassium Chloride .....	Trace

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Total solids in solution per gallon.....2204.587

One will see from a glance at the above analysis that  $NaCl$  is the leading solid with a fair proportion of  $CaCl_2$  and  $MgCl_2$  and is highly charged with  $H_2S$  gas. The water is transparent, very clear and has a peculiar offensive odor that many people like, yet some explain its odor as that of "rotten eggs." It has a strong action on tin, iron and other metals. The pipes that are used for delivering the water into the bath rooms soon corrode, deteriorate and one might say rot unless they are under the ground where no air can come in contact with them. The life of the bath tubs is very short and "full of troubles" unless they are constructed of wood, glass or crockeryware and soon become unfit for use. It tarnishes the finger nails, jewelry, coins and all other metals a dark brownish color and ruins the paint on the business and dwelling houses near the wells. People who bathe or work in the water have their finger nails turned black and their dollars or dimes that they may have are also turned black due to the  $H_2S$  and also to the  $CaCl_2$  or what is commonly called bleaching powder. The city used it at first to sprinkle the streets, but on account of its drastic action on paint and metal, its use had to be discontinued. Jewelers and business men were at first puzzled as to how to remove the discoloration; however, it was found that a solution of kalium ferro-cyanide will remove the stain from all metals. It is of an alkaline reaction and issues forth from the ground at a temperature of about 50 degrees.

Each bath house is equipped with hot room, where the patient is taken until a copious diaphoresis is produced, and then he is put into a tub filled with the water at a moderate temperature and the hot water added to as high a temperature as he can stand or is indicated. He is then thoroughly massaged by an attendant who is employed to do nothing else. Alcohol rubs or any others directed by the physician or patient may be received by the attendant, who is usually a colored man or woman, as they seem to stand the gases of the water the best. He is then taken to what is called the cooling room, where he is put between blankets on a cot, made for that special purpose, until he is ready to dress.

**ACTION:**—It has no action applied to the unabraded skin, but applied to ulcerations, tertiary syphilitic lesions, tonsilitis and other inflammatory processes of the mucous membrane it acts as an anodyne and antiseptic. Applied to fresh wounds it acts as an irritant on account of the large percentage of NaCl. It is an excellent parasiticide destroying the *sarcoptes scabiei*, the various forms of pediculi and especially that form the boys usually term "crabs." When taken into the mouth it has a salty, sulphurous taste and acts as a purgative due to its mineral salts. In a majority of cases it produces a copious watery excretion, although a few patients say that it acts as a cathartic for the first few doses and then becomes constipating. It is an antacid and by alkalinizing the gastric contents it forms insoluble compounds with mineral acids, namely: mercury, arsenic and copper, and therefore hinders or prevents the absorption of alkaloids. With plumbum and barium salts it forms insoluble sulphates and is a very good antidote to these materials. It is slightly a diuretic but in pathological conditions of the kidneys it is an irritant due to the amount of NaCl. Used as an enemata or irrigations of the sigmoid and rectum, by removing the mucus, it renders that field unfit for the habitation of the *oxyuris vermicularis*. By taking the baths the water acts as a mild general stimulant as bathing in the sea water does. The percentage of calcium salts of 258 grains to the gallon probably has some action towards increasing the coagulability of the blood, and repairing bone tissue. It increases the secretion of intestinal juices by stimulating the muscular coats, is a mild chologogue, producing liquid or semi-liquid evacuations, but in some few cases it is followed by some flatus due to the NaCl and the great amount of sulphur or hydrogen sulphide. A certain per cent of the cases that come here for the treatment by radium water and its baths do not come under our supervision or observation, as they are old "chronics," who have exhausted the patience and energy of their family physician, have probably sought refuge with all the quacks, have "bit" at all forms of patent dope and nostrums and have, as one might term, "gone the rounds" of medical science, both legitimate and illegitimate. Many times during the last six years I have



been called out at night to this class of patients and upon entering their room I am greeted with the admonition or command: "Doc, how much is your fee?" After paying the usual night fee of \$2.50 per call in city limits they say: "I want you to give me a hypodermic injection of one quarter of a grain of morphine and one one-hundredth and fiftieth grain of atropine and that is all, as I am burnt out on medicine and all that I want is some temporary relief until I give the water a thorough trial." It is a fact that vast numbers of people come here each year to use this water and I have personally seen patients here from several states of the Union and some very good results have been obtained and, too, some few bad results have also occurred where the water was used ignorantly. It is a great advantage to the local profession in some ways, as we get to study and observe the diseases from various localities. Patients come here from the West, North, East and Southern states and from this fact many are chronic and stubborn cases and others come in order to conceal their troubles from their friends at home, and as a result we are enabled to observe a great variety of diseases. We get to see diseases here, frequently, that practitioners in similar size locations would probably not see but very rarely in his locality. I have personally seen several cases of psoriasis, Paget's disease, Addison's disease, pityriasis and many others that are not commonly met in the smaller towns.

**THERAPEUTICS:**—Its greatest boon to suffering humanity is in the various forms of rheumatism. It seems to give the best service in the articular or inflammatory and chronic types, although most any form is benefited some by its use. I have seen several cases that were brought here on cots with enlarged or swollen joints, too tender and painful to permit even the weight of a blanket with impunity, and after a system of the baths be able to walk around town as they desired. Frequently we see patients who have finished their treatment and were returning to their homes with crutches discarded or taking them along as souvenirs. The local medical profession for quite awhile looked upon the water as another addition to "quackdom" and the nostrums, but after being thoroughly convinced many times of its good results in selected cases we were forced to swallow cold facts and to investigate it more closely, yet we do not endorse it as a "cure all" by any means. With some forms of eczema, alopecia, seborrhea, lichen planus, pityriasis, impetigo and the various dermatological manifestations of syphilis, especially the tertiary forms, and other skin dyscrasies it acts very favorably as a local treatment. I have obtained some beautiful results from the use of sodium cacodylate in connection with the water in cases of psoriasis. We all know well the stubbornness and chronicity of this condition and that it very often resists all our efforts to combat it, and at times will not yield to chrysarobin or any other treatments that we may institute.



Drs. Jas. F. Means and Fred A. Anderson of this city reported some splendid results from this line of treatment at the last meeting of the Rogers County Medical Society. The subacute or chronic forms of gonorrhea, leukorrhoea and other old inflammatory conditions of the mucous membrane except that of the eye and ear are benefited by its usage. Varicose and indolent ulcers, tuberculosis and other old lesions of this variety responds fairly well. I have treated several cases of old varicose ulcers, taking their usual favorite seat over the anterior tibia, and also at the same time using in connection the elastic stocking in order to help support the feebled circulation around that area and also other lines of treatment indicated in similar conditions and I have found it to be a great help. It is a certain bonafide fact that its greatest value is in rheumatism and the eczemas, the sciatic and specific forms of rheumatism being the least benefited. When electricity and other remedial agents are used along with it in the hands of any good physician the results in the two latter mentioned forms are also fairly good.

INTERNALLY:—I do not think so much of its internal administration as I do its external uses, although in some forms of gastritis, especially those attended with a hyperacidity, it is beneficial. When a new patient first appears, some people among the laity and usually some attendant, insists upon giving him what is termed by them "the water cure" in order to prepare him for the efficiency of his approaching treatments. It is given as follows: The patient is directed by his adviser to partake of glass after glass of the water warmed or hot, and as a matter of fact we all know the result of our old domestic and dietary friend NaCl, when taken in sufficient quantities. If enough passes into the intestines before emesis occurs one will readily see what pursues the imbibing of a few glasses of radium water taken simultaneously and constitutes "the water cure." One will see that it is of no value except as a gastric lavage and a purgative and may do some dirt in cases of typhoid fever and ulcer or carcinoma of the stomach or intestines, so if you should chance to send a patient to the wells and he needs his stomach cleaned out advise him accordingly. As an enema or rectal irrigation it is a very good thing to relieve the engorgement or hyperemia of hemorrhoids and also for the relief of the pruritis. I have heard several patients make the assertion that it is an absolute specific for all forms of hemorrhoids, but when we call to mind the anatomy of this condition we know that it is erroneous, but it is a good palliative remedy. The psychological phase of people coming here or away from their homes materially aids in the prognosis of many diseases. We often hear many make the statement that a system of hot baths could be given at home and receive just as good results but we know from experience that it does not very often prove so successful. While at home the man or woman in the busy walks of life can not

and will not often carry out specific orders as one should. In coming here or elsewhere the patient realizes his expense and directs his whole attention to his trip and change with no other motive in view other than to get well or relieved of his abnormality. His will power is strengthened and his only theme is centered towards that goal or reward. He subjects himself to a rigid dietary, willingly undergoes things that he would not permit at home, has nothing else to occupy his time but to obey orders, indulge in some sport or amusements if he is able, and is regular about his habits. He is punctual about his rest and sleep, drinks the water freely if indicated without any hesitation about its taste or smell, just so it is not medicine, and in this way his excretions and secretions are promptly aroused obtaining the benefit of thorough elimination. He secures a drastic diaphoresis in the hot rooms, taking his baths regular and at a temperature directed by his physician, if he should have one, is massaged thoroughly by attendants and takes his time in the "cooling room" and in this way forces himself to abide by a code of rules that we could not get him to do at home. He has a change of scenery, companionship, environment, is away from the worries of his business and the monotonous toils of everyday life which alone, whether he goes to some health resort or not, would be a great benefit to any one in any vocation of life.

**CONTRAINDICATIONS:**—Under this heading we have two important divisions, namely: (1) Moral and (2) Pathological.

Under the moral phase we advise our brother practitioners, if you should have a friend or patient to come to these wells, to beware of the "bath house booster or forerunner." These fellows claim to be residing citizens or patients who are just now taking the baths and using the water at a certain place and had tried all the others and they are robbers or no good. He may also tell you that he has Doctor So and So treating him and has cured him sound and well after all the others combined had failed. These fellows spend their days and nights around on the cabs, meet all the trains and are paid as a matter of fact indirectly from the patient's purse. Most of the sanitariums or bath houses here are all right and attempt to do a sound, legitimate business, yet some of them, unaware, have done some damage to the service it may be or may have been to many physicians, by making absurd assertions in their advertising. Among some of the literature that has been sent out, contained such misrepresenting statements as "We cure gonorrhoea in three days," and others equally as rank. Some of it was done by a grafter, of course, while some was misrepresented unknowingly. Some of it may take among the laity, but they did not realize that it put themselves in bad before the medical profession who really should be their best friend. I was explaining to a good man one day what a predicament he was getting himself into by any advertisement that was misrepresenting and he

was honest that some of it was correct because one or two of his brothers had told him that the water cured their "running rage" in three days and he at once got busy and recalled all his literature that could be found. The advertisement of the whole proposition was gotten out by men not in the medical fraternity, and this partly explains the matter, while a few purposely do it as a graft, and it is this class that should be contraindicated. The water, like many of our other agents gives us good results in selected cases yet it is like the "nigger" in the south, "good in its place." It is over-rated, as some of the specifics and preparations of the materia medica have been. When we secure a specific or some article that does not disappoint us for one condition, it is often given a black eye by failing to answer many indications and is then censured as an absolute fake. A similar state of affairs exists with some in regard to this water. It is abused every day by being used for all the ills human flesh is heir to and is posed by some as a "cureall" when it only squarely and honestly meets the indications of a few. I have actually seen cases of tuberculosis in its last stages, so weak and emaciated that they could almost float in the bath tubs. Most of the bath houses have no regular physician to examine each patient and do not require an examination before taking the baths to ascertain whether he is a fit subject or not to use the water. This is one fact that has prompted me to write this article and point out the few yet important contraindications, so that you may be able to save or assist a friend should such an occasion come under your care or observation. The government has been investigating this proposition and if it should decide to fulfill what has been promised and planned the business will be put under a regulated set of laws, the same as Hot Springs, Battle Creek and other well established health resorts. When this is done, both the laity and profession will be better protected in many ways. Many of the statements and assertions that you have no doubt seen are made by people who are not familiar with the science of medicine. The promoters are all laymen and the greater part of them good, conscientious and honest men and any misrepresenting advertising that they may spread out over the country is done with the honest opinion that it is for the benefit of the water and do not realize that it may injure the reputation of their labor in the eyes of the medical profession to whom its future success should really depend. The old and reliable friend, the family physician, is the predominating factor, to whom patients all over the world look to, for not only pills and powders, but it is he who engineers all the schemes and plans for the benefit of his patient, not only as to medicine but to change of climate, health resorts, and all other available means, and it is to this old boy that all prosperous hospitals and other institutions of a similar nature owe their existence. We have in Claremore as in all similar places, quacks, fakirs and nostrums of many kinds and it is to this minority class that we place the principal moral contraindication.



*Pathological Contraindications:*—The first and most important under this heading is parenchymatous or interstitial nephritis. (2) Diabetes, only when it is complicated with ascites or anasarca. I have seen several cases of nephritis of the first variety who had absolutely no external manifestations of ascites but would have some albuminuria, and after drinking the water for only a short time would develop an intense anasarca. This is the most important contraindication and is really the only real dangerous one, except it is some weakened cardiac condition. Bathing does not seem to affect it but drinking it certainly does and every case with an albuminuria should be forbidden to drink it and every patient should be compelled to have a urinalysis made before using it. As stated before, I believe that its bad effects with cases of nephritis is due the NaCl. (3) Weakened cardiac conditions including of course the organic lesions. (1) Fresh wounds. Case: Mr. A., age 22, a butcher and a resident of Western Oklahoma for whom I amputated the larger toe of the right foot. No infection and perfect union in a few days but just before I was to have removed the sutures, he took a bath in radium water at bed time and at midnight I was called to see my patient. The stump was engorged, hyperemic and the pain intense from the pressure of the stitches. This necessitated the removal of the sutures and the routine treatment instituted. I have seen several fresh wounds that it had irritated, but in old wounds it is very good. Very often when an old wound or ulcer is bathed with it the surface turns black as it does metals but the healthy skin is not discolored by it. (5) Typhoid fever. As we all know, a saline or purgative is to be avoided especially in the advanced stages. (6) Ear. A large swimming pool of the water was put in the Athletic building here and one of the ladies' clubs spent an evening of swimming in this pool and that night most all of the doctors in town were busy most of the night treating cases of otitis media or very painful cases of "ear ache." (7) Eye. The gases from it sometimes produce a conjunctivitis but this is seen only with attendants and those who work around the water most of their time and is rarely seen with patients. I have endeavored to give the true facts regarding this water and its uses and when used correctly, at the right place and the right time, as we would any reliable remedy, it is a good thing. I do not write this article with any motive of advertising the water, as I am not in the business and in case you should come to the wells yourself or send a friend you can always get any reliable information from any member of the Rogers County Medical Society, especially those who reside here.



## TWO HUNDRED OBSTETRICAL CASES ---- DEDUCTIONS THEREFROM AND REMARKS ON UNUSUAL CASES.

L. H. MURDOCK, M. D., Okeene, Oklahoma.

The following review of two hundred obstetrical cases covers a practice of nearly six years, the first of which was spent in Scott county, Virginia, and the remaining year in Blaine county, Oklahoma.

During the year spent in Virginia, fifty-two obstetrical cases were handled. My first case was a little out of the ordinary. Being called to see a farmer's wife with the information that she had miscarried three days previous, and her insides were coming out. She was found with a rapid pulse and a temperature elevated several degrees. Ocular inspection disclosed a large fleshy mass widely distending the vagina, but not projecting beyond it. On account of inexperience, the nature of this mass was not at first recognized, and the case looked serious. Instruments and hands were sterilized, and a guarded examination begun. Gentle manipulation soon dislodged an almost fully developed placenta. This had been completely expelled from the uterus; but had remained three days in the vagina, during the hottest season of the year. The uterus and vagina were thoroughly irrigated and the next day found the patient without fever, and doing well.

A few evenings after this came the call to the first real labor case, a multipara. The patient was a well developed woman with a roomy pelvis, and gave a history of previous labors being comparatively short and easy. Pains were hard, and lasted throughout the night. About sunrise, the head of the child was born occipito-posterior. A few months later another case of occipito-posterior delivery occurred in a primipara. Since that time, I am glad to say, I have delivered no cases occipito-posterior.

The only breach presentation, excepting twins, occurred during the first month of practice. The patient was an unmarried girl of about sixteen. After a long and hard labor the child was born dead. Where the passage is small, and the passenger large, there is no presentation which requires greater skill on the part of the obstetrician than a breach case. My old professor, Dr. A. F. A. King, used to emphasize the following rule when lecturing on "breach presentation," *"While the body is being delivered, exercise masterly inactivity. After the body is delivered, comes the long pull, the hard pull, and the pull altogether"*

One face presentation occurred in this series. The chin rotated anteriorly and the delivery was accomplished without difficulty.

A call came one morning to visit a woman, a multipara, who had been in labor all night. Examination disclosed the os fully dilated, the right arm presenting and the head resting on the left shelf of the pelvis. Attempts to replace the arm were unsuccessful. The head

was then manipulated so as to engage in the pelvis and delivery followed without difficulty in a few minutes.

Six cases of twins occurred in the two hundred cases. Four of these in the year of 1910, the year during which Oklahoma had an unusually large crop of twins. All of these children were born alive, except one which had been dead for several days before delivery. Of the eleven children born alive, ten are still living. Five of the cases had a common placenta; but the bodies were contained in separate sacks. The case in which one of the children was born dead, had two separate and distinct placentas.

In the two hundred cases, one child was born with one forearm neatly amputated just below the elbow; but otherwise strong and healthy.

Two cases of anencephalus and one blue baby were delivered. These three cases are interesting because of marked hydramnios in all of them. In the first case of anencephalus, I am satisfied that the delivery was a full month beyond the usual two hundred and eighty (280) days. At the time the patient expected to be confined, pains came on and disappeared. A month later pains came again, and were hard but ineffectual. The membranes were purposely ruptured before dilation of the os and a large amount of water escaped. The pains became more effective and after a hard night's labor the child was born "face presenting." The cranium was missing above the ears; but the body and extremities were the largest I have ever seen. The child died immediately at birth. The second case of anencephalus was a miscarriage at seven months evidently brought on by overdistention from the quantity of liquor amnii. The case presenting the blue baby had been having ineffectual pains for five days, and the patient was nearly exhausted. The membranes were ruptured, and the excessive amount of fluid allowed to escape, although the os was but slightly dilated. The pains then became effective, and in a few hours an apparently well developed ten pound baby was born. This baby was of a dark blue hue which failed to clear up, and it lived only about eight hours. From this limited experience, I believe that in a case of hydramnios with pains present, but ineffectual, and the obstetrician is satisfied that the usual time of gestation has elapsed, the membranes should be ruptured, even though the os is not fully dilated.

One case of placenta praevia, the marginal variety, was seen. When visited, the woman, about seven months pregnant, had been having hemorrhages for about a week. The mattress was soaked with blood, and the patient was pale with a pulse of 160. Podalic version was performed, the foetus and placenta delivered, and a quart or more of saline solution run into the bowel. The patient was cautioned to remain quiet and was found greatly improved the next day.

In one case, a multipara, the uterus was emptied at the end of the sixth or seventh month on account of the presence of marked albuminuria, and decided uremic symptoms. The patient hung between life and death for nearly a month; but finally began to improve, the urine cleared of albumin, and she has since been quite well. That was four years ago, and she has shown her good judgment in not experimenting further in child bearing.

One case, a primipara, developed eclampsia just before delivery. The convulsions continued after delivery, and were apparently very little influenced by hot air baths, purges, and the usual sedatives. At the end of about twenty hours, a pint of blood was taken from her, and salt solution administered by the bowel. The convulsions decreased in number, and severity. In two hours another pint of blood was removed. The convulsions ceased, and the patient made an uneventful recovery.

One case developed post-partum insanity on the second or third day after delivery. This condition lasted eight or ten weeks, and terminated in complete recovery.

Two of my cases suffered attacks of typhoid fever without miscarriage. One of these cases had a very severe attack of typhoid fever, complicated by pneumonia during the months of October and November, and the first days of December, and on January 4th, following, gave birth to a small, but healthy baby.

The following case of an apparently healthy woman who had raised several healthy children, and then gave birth to three dead children at near full term, may be of interest:

The first dead child was delivered in June, 1908, and the attending physician had difficulty in effecting delivery on account of distention of the child's abdomen with gases. The child was apparently full term; but had been dead several days. In January, 1910, their former physician having moved away, I was called to attend her. Again a dead child was born which was apparently full term. It had been dead for several days. The patient was requested, as soon as convalescent, to call at my office for careful examination. This disclosed a mitral insufficiency, the other organs of the body being normal. She was advised to avoid, if possible, further child bearing, or at least to take a good rest. In about nine months she became pregnant again. She was advised to avoid all heavy work, to lie down for rest occasionally during the day, and was given general and heart tonics. It was arranged to visit her about two weeks before the expected delivery when the matter of inducing labor was to be considered. The call came in June, 1911, a day or two earlier than arranged. She was found in labor, and a child which had been dead probably twenty-four hours was born.

In these two hundred cases there has not been the death of a woman either from miscarriage or confinement at full term. There



was only one case of infection where the management of confinement was had throughout. In this case the patient did well until the sixth day when she rapidly developed a temperature of 105. The uterus was lightly enretted, and irrigated, and anti-streptococic serum administered. The serum was administered at twelve hour intervals until the third day. The temperature gradually descended, and was normal again by the fourth day. It is not intended to give the impression that the serum treatment is a sure cure for puerperal sepsis for I have been in consultation in three or four cases where the serum was used, and the patient died. It is believed, however, that whenever puerperal sepsis is diagnosed the serum should be used, and used early.

From three or four cases which have come under my observation, it is believed that the fever which occurs within a few days after delivery is quite frequently due to an uremic condition. The urine is albuminous with a history of the presence of albumin before delivery, and other significant symptoms.

Forceps were used in ten cases. These were used without injury to the child; but in one case in which the head had been delivered by forceps the body was still tightly wedged, and it was necessary to insert a finger under the arm to deliver it. When it gave, the arm was suddenly delivered, and the humerus fractured near the shoulder joint. The injured arm was splinted, and made good repair.

I have had a number of perineal tears of the first and second degree, and two of the third. The two of the third degree were both in forcep cases. I am a firm believer in immediate repair of a torn perineum, and have secured excellent results in all cases except one of the complete tears which was only partially successful.

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## A DISORDER DUE TO INTENSE HEAT.

GEORGE A. KILPATRICK, M. D., Wilburton, Oklahoma.

For several years, during the summer months, we have noted a few cases of a peculiar condition of severe muscular spasm, characterized by severe tonic spasms which occurred as interruptions of a most remarkable grade of persistent quivering of the muscles. The disturbance in these cases was very violent but of short duration and, as I recall the cases, two or three days was all the time lost on account of their illness.

We have observed this disorder most often in firemen who have had to work in boiler rooms that did not protect them entirely from the sun's rays. However, the most recent case that has come under observation in our practice was a miner who walked about a mile and a half, with only a small miner's cap to protect him from the sun, on a very hot day last July.



J. U., age thirty-six years, has been working in coal mines since he was eighteen years old. There was nothing in his family history that had any bearing upon his condition. He has had pneumonia and several attacks of tertian malaria; has been quite a hard drinker and his arteries show some sclérosis.

The attack began on July 20th, at about four o'clock in the afternoon, while the patient was returning to his home after an extremely hard day's work. The weather was very hot and, coming from his cool working place in the mine, he became greatly overheated. He was suddenly seized with very severe cramps, which began in the calves and rapidly spread to the thighs, the forearms, and the abdomen. These cramps grew rapidly worse and when I saw him about an hour and a half after the onset he was perfectly helpless. I found him on the floor of his home suffering considerable pain and unable to reach his bed on account of the painful spasms of the muscles of the legs and thighs.

Physical examination showed the patient to be a muscular, well nourished man. His face was pale and I thought at first that he was suffering from shock brought on by some intra abdominal crisis. He said that he had not vomited but was nauseated a little while before I came. His abdomen was neither distended nor tympanitic, and there was no other discomfort other than that occasioned by the frequent spasms of the abdominal wall. The lungs and heart were negative, as were the spleen, liver and other abdominal organs. The peripheral arteries were sclerosed and he had a few enlarged glands.

The most striking feature of the case was the constant fascicular contraction in the muscles of the feet, legs, thighs, abdomen, hands, and forearms. There was a great deal of twitching of the muscles of the face. Contractions appeared synchronously in various muscles of the calf and continued with such energy and rapidity as to resemble a bunch of very lively snakes as described by Dr. Edsall in reporting his cases. Next to the calf muscles, the muscles of the thigh and abdomen showed the most active movements. The mechanical irritability of the muscles was greatly exaggerated. A slight tap upon them would bring on a severe local tonic spasm and the muscles would become board-like in hardness. Any attempt at voluntary use of the muscles of the trunk or extremities would be followed by violent spasm. I did not examine for Trousseau's, Chvostek's or Hoffman's sign, but as they were absent in the cases that were studied by D. L. Edsall I have felt that I would not have found them. There was no spasm of the back or neck and no trismus. The mental condition was normal and his temperature was 99 degrees. I gave him one-quarter of a grain of morphine and a thorough purge with castor oil. He was entirely comfortable the next day and returned to his work on the third day after the attack.

I feel that these cases are quite common from the number seen by my brother, Dr. Garnett Kilpatrick, and myself. However, they have escaped any general recognition in medical literature, and I have only been able to find the cases reported by Dr. Edsall in 1904, from his wards in the Episcopal Hospital at Philadelphia. In a recent talk with him in his wards at the Massachusetts General Hospital, he said that he had been able to gather quite a number of these cases. I also have talked with men who have been in the navy and around large public works where men are exposed to extreme degrees of temperature and they describe the condition quite accurately and say that it occurs frequently.

I realize that in dwelling on this common condition that I am laying myself open to the charge of belonging to that class who go about talking of well known things as if they were the discoverers of them. However, the recent psychology has shown the value of emphasis and I trust this brief study will cause others to note this disorder and give us a more exhaustive report.

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### **AN UNUSUAL TRAIN OF SYMPTOMS CAUSED BY UTERINE FIBROIDS.**

V. BERRY, M. D., Okmulgee, Oklahoma.

During twenty-five years practice of my profession it has been my lot to run against the unusual and abnormal, just as we all do who are alert to the things common to our calling. We get so used to the extraordinary that we often resolve that we will never be surprised at anything; and I have reached that stage in life where I believe I can truly say that it would take a most extraordinary occurrence to shake my equanimity; yet I must confess that I have reached a period where a cock sure diagnosis will never be given until the evidence is all in.

In December of last year (1911), while in the county seat of an adjoining county to my own doing professional work, I was requested to see the maiden sister of the physician in charge of the patient in hand, and make a careful examination to determine the nature of her illness, if possible. As soon as our duties were through we repaired to the patient's home, a Miss B., 32 years of age, school teacher by occupation. She was emaciated, pale and somewhat anemic, with a wan or anxious facial appearance as though having suffered pain over a long period of time. She was very nervous, and of a very timid, retiring disposition. Her previous history was that in July she experienced a distinct pain in the left pelvic region on voiding urine, and that later, bowel movement also aggravated her condition. I might here remark that her family history was entirely negative insofar as any bearing on her ailment was concerned. The pain was keen and spasmodic and lasted quite a long time after evacuation of the bladder and bowels, especially the former. The bladder became

irritable, and evacuation was very frequent with small quantities of urine voided at a time. Intervals between voiding were comparatively free from pain; that is after some time had elapsed after bladder evacuation, but the desire for urination finally became so frequent that the patient became extremely nervous, her health rapidly declining and melancholia seemed imminent. The urine showed nothing on which to base a diagnosis, and finally she was persuaded to submit to an examination which was done by a local physician of her community without an anesthetic, and, as a consequence without any definite result. She was so sensitive that a proper examination was impossible. On my seeing the patient, ether was given to the point of full anesthesia, and on the introduction of the finger through the vagina a hard mass about the size of an ordinary walnut was felt tightly wedged in the lower left pelvis, and another smaller mass was felt near the fundus, firmly attached on the right front uterine surface. Fibroids were readily diagnosed, and the opinion given that the one on the left was wedging the ureter and bowel against the surrounding structures sufficient to give the train of symptoms present. I am free to confess that before the examination I had made up my mind that this was a case of ureteral calculus lodged somewhere in the ureter, and ureteral catheterization would have been proper in this case; but not having my cystiscope deemed a diagnosis expedient on the data at hand; and subsequent events proved the correctness of this position.

December 28th the patient was brought to Okmulgee and placed in the hospital. After a few days rest, laparotomy was performed and the mass on the left side was found to be absolutely fixed in its position between the layers of the lower fold of the broad ligament, and was pressing directly on the ureter and bowel. The broad ligament was incised and the growth was easily peeled out of its bed, and the short pedicle was ligated by taking some deep sutures around its base with catgut, then after removal of the growth the ligature was drawn together, tying the pedicle and drawing the peritoneal covering over the stump at the same time. The smaller growth was removed without difficulty and after an examination of the surrounding structures ventral suspension of the uterus was done to correct downward and backward displacement which was well marked and from a cause which was not determined. The abdominal wound was then closed as usual, three rows of catgut and a skin suture of parafined linen thread being my routine. In eight days the skin sutures were removed, and in a few more days the patient returned to her home; and while her general health has been regained rather slowly yet improvement was continuous from the first, and the pain has never recurred since the operation. In fact, all bladder and bowel symptoms were absolutely done away with, and the patient is now in good health.



This case is unique in another respect—it is the youngest white woman on whom I have ever operated for fibroids. Of course, we readily recognize that fibroids are comparatively frequent in women of this age, and even younger, but they do not cause symptoms except in rare instances.

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### DR. FISHMAN'S VIENNA LETTER.

WIEN, Jan. 8, 1913.

Now that I have just returned from a beautiful trip through Italy, where I spent the holiday vacation, I hardly feel like talking shop and shall ask the indulgence of the readers while I say just a few words about Vienna life and its habits. It may be even more interesting than medical topics just as a matter of diversion.

The thing that will always ring in the ears of anyone who has been here for either a longer or shorter time is the familiar and usual greeting of the Viennese, "Ich habe die Ehre," which translated means "I have the honor." What the honor is no one states, but everybody says it whether they come or go and its quite proper and polite. Not that the Viennese are so extremely gracious, but it goes well with the old town and is one of the many customs which the people have just naturally retained. However, when you meet a lady it is proper to say, "Kuss die Hand, Guadige," which means, "I kiss your hand, gracious lady." Not at all seldom is the word actually enacted, especially when one is out in society. It may be a bit embarrassing for a foreign visitor to have her hand kissed by a comparative stranger, at least at first, but one gets used to that after awhile.

In speaking of old customs, we can say that Vienna is full of them. Some are rather humorous, while others are somewhat inconvenient. When you engage your room or pension (boarding house) you are given at least two very massive keys for which you may need a special pocket, one is for the outside door and the other to the apartment in which you live. You are rarely called upon to use the largest of these keys because the outer door is locked promptly at 10 o'clock and the portier must be awakened to open the door either on leaving or entering a house. For this service, that distinguished personage receives 20 hellers (4 cents) per head. It would cost a good deal to send for a doctor after 10 o'clock. I said *send* for a doctor, because telephones are comparatively few in Vienna, only 24,000 for over two millions of people. I figure that the messenger and the doctor would have 1 crown, 60 hellers, to pay just for the janitor's services. This is in reality only 32 cents but it's a great deal when you consider that the usual fee for the doctor's services is only 4 or 5 crowns, about one dollar.

Nothing seems quite as odd to the stranger as it does to tip the street car conductor. In Vienna it is the usual thing to do, be it ever



so little, while for the stranger it is quite necessary, for otherwise you stand a good chance of being carried a considerable distance beyond your desired stopping place.

It seems humorous to go into a restaurant and immediately be surrounded by a half dozen or more attendants who seem to be over-anxious to serve you. This does not necessarily mean good service, for after you have given your order you will probably be compelled to wait an incredibly long period of time. Of all these attendants there is one who takes your coats, another who takes your order, a third who brings water or other drinks, still another may bring your food, while someone else will collect the bill, and so on. When, however, you really desire something, it will be like the city policeman, nobody's around. You may be sure, however, they will all be hovering about when you get ready to pay your bill, and tips are to be given all around if you expect to remain in good grace in that establishment.

There is some ceremony about getting settled, not the least of which is the requirement of filling out the "meldeszettel," or registration certificate which goes to the police authorities. It must be compiled with minute exactness, giving a rather complete history of yourself and family. I think of all the difficulties the land ladies have with their American guests, the explanation of this formality will probably be the most severe.

Although Vienna is a metropolis as large as Chicago, it is strange to note how little of it is modern. When we first reached the city we had a little difficulty in finding a hotel away from the business center, having steam heat and running water. When we told some of our native friends of our find, they could not quite understand why we should lay so much stress upon these conveniences; for had they not lived all their lives without them, and were they not happy?

One can only gasp with astonishment at the sight of a group of women working at hard manual labor, mixing mortar, street cleaning or other heavy work in this enlightened city and wonder how a nation can be great under such existing conditions. The social problem is such that it is imperative for the female members of the family to thus actively increase the household income if they are to live.

There are, on the other hand, many agreeable habits, such as the cafe life which we might to advantage inaugurate in our own country. The cafe is the average man's club, and he may spend a pleasant hour or two over a cup of coffee, reading the current journals and newspapers in almost any language he cares to select, watch the good looking women during his stay and when he gets ready to go his bill will be about 60 heller (12 cents) for all this. And often he'll have a full orchestra thrown in, which will furnish the most excellent of music.

One must not forget to mention the beautiful operas, theatres, and musical concerts for which Vienna has world-wide reputation. The privilege of these entertainments compensates to a large extent many of the inconveniences this antiquated city has to offer and makes one's stay pleasurable and long to be remembered.

C. J. FISHMAN.

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## EDITORIAL

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### THE BOND MARRIAGE BILL.

The thinking physicians of the State will regard with regret the failure of the Bond Marriage Bill of passage at the hands of our erudite Legislature; organizations and individuals who have devoted much study to the evils of bad marriages must continue to look on with more or less alarm at the mating of the fit with the unfit, the binding together by law of the pure with the scrofulous and infected, the pure with the bestial and so on without end.

Advices give it that the passage was opposed by members of the Legislature on the ground that the pure girl would be subject to a humiliating examination and that the law would be a contravention of the rights of the individual.

We must observe for a time longer the same pure girl, too pure to submit to examination physically, submit to slow and torturing disease, submit to the removal by degrees or en masse of her genital organs, submit to the agony of observing her offspring tainted and slowly perishing or crippled mentally and physically beyond cure.

This condition will never be improved except by this class of legislation and its strict enforcement; we now have and have had for many years a law on our statute books calling for heavy fine and imprisonment in the case of one person infecting another with gonorrhoea or syphilis, but it is doubtful if ever a prosecution has been brought for any such crime, yet we know it is of daily occurrence and those who study the matter say the venereal peril is one of reality and not a paper peril, that sooner or later the State must take cognizance of its existence in order to protect its citizenship in a proper manner.

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### THE FEE OF THE PHYSICIAN AND SURGEON.

A great deal of amusement was occasioned by the introduction in the Legislature by Representative Lemmox of Okmulgee County of a bill regulating the charge a physician or surgeon was to make for services. As is so often the case of attempts at regulation this bill dealing with very life and death itself was introduced by a farmer whose horizon is limited by the one hundred and sixty acre farm on which he exists.

While the matter was not taken in seriousness by anyone it is a matter of doubt whether to consider it in a frivolous manner or as a reflection on the class of medical and surgical attention the farmer has been receiving or has been observing in his community. We are not inclined to believe his ideas have been induced by inferior medical service for we know the class of men in the community in which he lives and such conclusions would be unwarranted.

His effort toward having his name inscribed on the lasting tablets of fame was probably induced more by actual ignorance of the work necessary to make and maintain a physician than by any real knowledge indicating need for reform in the charges of the medical profession.

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### **HAVE YOU PAID YOUR ANNUAL DUES FOR 1913?**

Members who have not remitted to the County Secretary for 1913 should attend to this at once as the time limit will soon be up.

On April 1st those members not reported as paid will, in compliance with the Constitution and By-Laws, be stricken from the rolls.

Each year a certain small percentage neglect this matter, their names are dropped and finally after notification from the American Medical Association and correspondence they remit and are reinstated.

It is perhaps not known to the members generally that twenty or thirty names taken from the rolls, notified, corresponded with and finally reinstated are a source of more trouble than two hundred remitted for in the regular manner; all of the mistakes and misunderstandings with reference to membership and mailing lists occur usually through these channels, and by remitting promptly at the proper time members will save the secretary's office and themselves much unnecessary correspondence.

In some instances there is a tendency to blame the County Secretary, usually on the ground that he could have notified the member and our files are replete with that condition, but this is all wrong; it is just as much the member's affair to keep himself in good standing and co-operate with the secretary by promptness as it is the secretary's. It is asking too much to have the secretary call time after time requesting the payment of dues; he receives no salary and sacrifices his time in calling on you requesting you to attend to your own business. Help him by promptness.

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### **RESOLUTIONS OF THE FACULTY OF THE UNIVERSITY WITH REFERENCE TO THE RESIGNATION OF DEAN WILLIAMS.**

OKLAHOMA CITY, February 7, 1913.

At a meeting of the Faculty of the University of Oklahoma School of Medicine, held on this date, the following resolutions were unanimously adopted:

WHEREAS, Dr. Robert F. Williams, for personal reasons has resigned as Dean of the University of Oklahoma School of Medicine, and has changed his residence to another city; and,

WHEREAS, The Faculty of this school has nothing but praise for his ability and conscientiousness as a Dean and his character as a man; it is

*Resolved*, That the Faculty greatly regret his departure; that we feel that the Medical School has suffered a loss that it will be difficult to regain; that Oklahoma City has lost a good citizen; and that the Secretary of this Faculty be instructed to send Dr. Williams a copy of these resolutions, to spread the same on the minutes of the Faculty, and to publish the same in the Journal of the State Medical Association.

E. S. FERGUSON, M. D., Secretary.

W. J. JOLLY, M. D., Acting Dean.

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### COUNTY SOCIETY ELECTIONS FOR 1913?

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C. A. Waters, Stilwell, President; D. A. Board, Westville, Vice-President; C. M. Robinson, Stilwell, Secretary-Treasurer; Censors, B. F. Collins, J. N. Lane, Stilwell, and G. W. Dickey, Westville.

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## NEW BOOKS

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HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M. D., President of the American Proctologic Society, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and rewritten, second edition, 338 pages. Royal octavo, 172 illustrations, including four colored plates. Price \$4.00.

The first edition of Dr. Hirschman's book met with a hearty reception at the hands of the medical profession. The present edition has been entirely rewritten. forty new illustrations, including two colored plates, have been added, and the entire book has been reset. This is preeminently a book for the general practitioner. It is written in the hopes that this class of the medical profession will arouse themselves to the possibilities of this line of work and not allow the charlatan and the advertising quack to take from them work which can be done by the legitimate practitioners of medicine. To that end special attention has been paid to office work in rectal diseases and the part that *local anesthesia* plays in this class of work.

**GOLDEN RULES OF SURGERY. VOL. I OF THE GOLDEN RULE SERIES.** Especially intended for students, general practitioners, and beginners in surgery. By Augustas Charles Bernays, A. M., M. D., F. R. C. S., English Life Member of the German Society for Surgeons of Berlin, Chief Surgeon Lutheran Hospital and for twenty years Professor of Anatomy and Surgery, St. Louis. Second edition, revised and rewritten by William Thomas Coughlin, M. D., Assistant Professor of Surgery, Chief of Clinic, St. Louis University Medical School, St. Louis. 280 pages. Octavo. C. V. Mosby & Co., St. Louis. Price \$2.25.

The entire absorption of a large first edition of the Golden Rules of Surgery made necessary the issue of the present one. Its enlargement and elaboration by the junior author has made it possible to cover the entire field of surgery in a thorough and systematic manner, at the same time preserving the character and charming style that made the first edition of this book popular.

In reviewing this volume one is struck with the force of each statement, showing that the authors have weighed well the idea to be conveyed and have striven to present the thought to the reader in a convincing manner.

One is surprised to find cardinal principles enunciated in a sentence, which in ordinary textbooks and systems can only be found after carefully dissecting page upon page. How easy it is to forget facts is impressed upon one after reading this volume over and over again. It can be truthfully asserted that to read this little volume over and over will so acquaint one with the fundamental truths of surgery that a view-point of this science and art will be obtained that will redound greatly to the credit of the reader.

The publishers announce that other volumes in this series will follow rapidly—on Gynecology, Diagnosis and Treatment, Pediatrics, and Obstetrics.

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**A NEW WORK ON THE HISTORY OF MEDICINE.** W. B. Saunders Company, publishers, of Philadelphia and London, have in active preparation a work on the History of Medicine by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and Editor of the Index Medicus. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the Surgeon-General's Office, fit him most admirably for such a work as this.

His book will present the history of medicine from the earliest ancient and primitive time; on through Egyptian Medicine, Sumerian and Oriental Medicine, Greek Medicine, The Byzantine Period, the Mohammedan and Jewish Periods, the Mediaeval Period, the Period of Renaissance, the Revival of Learning and the Reformation; the Seventeenth Century (The Age of Individual Scientific Endeavor,)

The Eighteenth Century (The Ages of Theories and Systems,) The Nineteenth Century (The beginning of Organized Advancement of Science,) the Twentieth Century (The beginning of Organized Preventive Medicine). There will also be Appendices covering Medical Chronology, Histories of Important Diseases, Histories of Drugs and Therapeutic Procedures, Histories of Important Surgical Operations, and Bibliographic Notes for Collateral Reading.

Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

The illustrations are intended to stimulate the reader's interest in the picturesque aspects of medicine and in the personalities of its great leaders. The biographies will be confined to the most important facts and to interesting personal traits. The original bibliographic references to the important discoveries, operations and experiments will be given. Each period is to be followed by a brief survey of its social and cultural phases. Altogether it promises to be a most important addition to medical literature. We await its publication with much interest.

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PRACTICAL MEDICINE SERIES. NERVOUS AND MENTAL DISEASES. VOLUME X. Edited by Hugh T. Patrick, M. D., Professor of Neurology in the Chicago Polyclinic, Clinical Professor of Nervous Diseases in the Northwestern University Medical School; Ex-President Chicago Neurological Society, and, PETER BASSOE, M. D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College, Series 1912. Cloth, illustrated, 236 pages. Price \$1.35. Chicago, The Year Book Publishers, 180 North Dearborn Street.

This is a review of recent literature on mental and nervous diseases and as such will be of value as a ready reference to those who desire a handy reference to recent findings in this special line of work.

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OKLAHOMA DEPARTMENT OF HEALTH. Second Biennial Report, 1901-1912, Edited by Dr. J. C. Mahr, State Commissioner of Public Health, and his staff.

This report covering 466 pages, illustrated and under proper divisions shows the amount of work covered by this department in the last two years.

The book is rich in statistical information, instances of food and drug adulterations, water, sewage and other similar examinations and contains a detailed report of the invasion of the state by epidemic cerebrospinal meningitis in 1912. This particular phase of the report should especially be given the attention of our lawmakers, in that it

shows very often that the reason for non use of serum in this class of cases was often due to "financially unable." This condition is a stinging rebuke to an enlightened citizenship and should be remedied. In fact no harm would result in a financial way to the state if all serums, vaccines and similar biological products were furnished free of cost to all requiring them.

**OKLAHOMA HOSPITAL FOR THE INSANE, Norman, Oklahoma.** Annual Report for the Year Ending September 30, 1912.

This is a sixty-four page resume of the work, scope and character of cases treated, received, discharged for the time indicated, issued under the direction of Superintendent, Dr. D. W. Griffin.

A cursory examination shows that the institution now comprises twenty-two new buildings, and that following a well defined plan two new buildings—one a hospital building, and the other a receiving ward, have been constructed during the year.

The report shows that there were 893 patients on October 1st, 1911, that 680 were admitted during the year making a total of 1,573 treated. 156 were discharged, 159 died, 131 were paroled, 46 escaped, leaving 1,031 in the institution October 1st, 1912.

The report classifies the cases received and treated and is valuable to those interested in the betterment of this class of cases from the state's unfortunate citizenship.

#### NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1912, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Unofficial Remedies:"

Novatophan is ethyl 6-methyl-2-phenyl-quinolin-4-carboxylate,  $\text{CH}_3\text{C}_6\text{H}_4\text{N.C}_6\text{H}_5\text{COOC}_2\text{H}_5$ , 6:2:4, the ethyl ester of paratophan. It is a crystalline, tasteless powder, insoluble in water. Its action is the same as that of atophan from which it differs only in being tasteless. It is also furnished in the form of Novatophan Tablets, 0.5 Gm. ( $7\frac{1}{2}$  grains), Schering & Glatz, New York, (Jour. A. M. A., Nov. 30, 1912, p. 1971).

Hexal is hexamethylenamin salicylsulphonic acid,  $(\text{CH}_2)_6\text{N}_4\text{C}_6\text{H}_4(\text{OH})\text{COOH.HSO}_3$ . It is a white crystalline powder, soluble in water. It is a weak combination of hexamethylenamin and salicylsulphonic acid. It is claimed to have the action of hexamethylenamin combined with an anesthetic and astringent action on the inflamed mucous membranes of the biliary passages and urinary bladder without having a deleterious effect on the bladder walls. Claimed to be useful in chronic inflammation of the bladder, posterior urethritis, etc. It is also furnished in the form of Hexal Tablets, 0.5 Gm. ( $7\frac{1}{2}$  grains), Riedel & Co., New York, (Jour. A. M. A., Nov. 30, 1912, p. 1971).

Glycotauro, Bile Salts, H. W. & Co., is concentrated ox bile, freed from bile pigments each Gm. representing approximately 10 c. c. of fresh ox bile. It is a soft, semi-solid mass of bile-like odor and slightly bitter taste. Its actions and uses are those of bile salts. It is marketed in the form of Glycotauro Capsules, 5 gr. and Glycotauro Pills, 1 gr. Hynson, Westcott & Co., Baltimore, Mr. (Jour. A. M. A., Dec. 7, 1912, p. 2066).



Mercurial Ointment, Improved, is an ointment containing 50 per cent. of metallic mercury in an ointment base consisting of anhydrous wool-fat, petrolatum and suit, aromatized. Its actions and uses are the same as mercurial ointment, U. S. P., but it is devoid of the unpleasant odor of the official preparation and is said to be more readily absorbed. It is marketed in the form of Capsules Mercurial Ointment, Improved, Mulford, 30 grains and Capsules Mercurial Ointment, Improved, Mulford, 60 grains. H. K. Mulford & Co., Philadelphia, Pa. (Jour. A. M. A., Dec 7, 1912, p. 2066).

Cycloform, isobutyl para-aminobenzoate, is 2-methyl-propyl-4-amino-benzoate,  $\text{O}_6\text{H}_4(\text{NH}_2)\text{COO.CH}_2\text{CH}(\text{CH}_3).\text{CH}_3$ . It is closely related to anesthesin (ethyl amino-benzoate) and propaesin (propyl aminobenzoate). It is an odorless, crystalline powder, soluble in olive oil and only slightly soluble in water. Said to act on wound surfaces or mucous membranes as a superficial and prolonged anesthetic and as a mild antiseptic. Used as a dusting powder, 5 to 20 per cent. ointments, in suppositories and internally in doses of 0.1 Gm. to 0.2 Gm. ( $1\frac{1}{2}$  to 3 grains). Farbenfabriken of Elberfeld Co., New York. (Jour. A. M. A., Dec. 14, 1912, p. 2150).

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FOR SALE—1 Betz Electric Light Bath Cabinet; 1 Massey Cabinet Battery. Can be seen at O. S. P., McAlester, Oklahoma. Address J. W. Echols, Prison Physician. 11-13

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Next Meeting—Oklahoma City, April 8, 9, 10, 1913.

Address all communications to the Secretary.

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C. R. Day, Security Building, Oklahoma City.


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# THE JOURNAL

of the



## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, APRIL, 1913

No. 11

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

### UNUSUAL CEREBRAL SYMPTOMS IN A CHILD OF TEN YEARS.

W. G. LITTLE, Okmulgee, Oklahoma.

The medical interest in the case I shall set forth, will lie in the element of uncertainty which it contains, and the unusual occurrence of cerebral manifestations which we look for almost wholly in people past middle life. Besides setting forth these occurrences and my own diagnosis, I have the hope of exciting your thought sufficiently that in the discussion, I may have concurrence, wholly or in part, or a disagreement, with reasons for the same. To me it has been a case of unusual interest, and an incentive to profitable study. I shall give the case report first and then submit my diagnosis and conclusions.

Martha F., a girl ten years of age. She is large for her age, inclined to be fat, has a fair skin, is exceptionally bright mentally, and active physically. Her mother is plump in build and of a nervous temperament, easily excited. The girl is the younger of two children, the other being a boy of 17 years. At school Martha easily leads her classes, and on the play ground is the most active also, doing rope jumping the fastest and longest of any of her companions. She has the habit of overloading her stomach with things she likes to eat and as a consequence suffers frequent stomach disturbances. In the early part of January, 1912, she was exposed to whooping cough, but as



nothing developed of a distinctive character, it was supposed she had escaped infection. But a simple cough developed which resisted the usual sedative remedies, and continued about the same as when she took nothing. It was finally decided this was whooping cough without the whoop, and as it did not bother much, medicine was withheld. Toward the last of January she complained of headache, which was quite severe when she coughed, and she was given treatment to try to relieve this, but which was not successful in the few days preceding the principal occurrence in this unusual case. This occurrence took place as follows:

On the morning of Thursday, February 1, Martha arose about 8 a. m. complaining more than usual of a severe headache. Her mother gave her something to eat and tried to dissuade her from going to school that day. The girl was anxious not to miss a day as that would cause her class to miss a half holiday and subject her to the ridicule of her classmates. So she hurried off to school about two blocks distant. About 9 a. m. the teacher came bringing the child home, partly carrying her and told the mother that Martha had been found in the basement, doubled over, acting queerly, and not knowing anything, as the teacher said: "paralyzed." I saw her shortly after and found her dazed, limp, and complaining of intense headache. She would talk little, vomited some, had the use of her hands and feet, with no paralysis showing at that time. After she had slept awhile conditions were better except for the headache, and the cough. The next day she was up playing around the house. Saturday, February 3, she was feeling very well and was playing with her parents, when about 1:30 as they were sitting by the table talking, suddenly the girl assumed a rigid position, the eyes in a vacant stare, looking upward, then turned slowly to the left as far as they would go and showed nystagmus, followed by the entire head's turning by a jerking movement until the face looked squarely over the left shoulder. She was put to bed but still the head remained in the same position and the body was limp. The chin dropped somewhat, the right side of the face drooped some, the left hand jerked and dropped as if paralyzed. The pupils were evenly, but not widely dilated. There was some vomiting and gradually the active movements passed away and consciousness returned. At this time she complained of intense headache, crying with the pain. A hypodermic of morphine and glycerine was given and cold applications placed on the head, which was elevated.

On Sunday, February 4, at 3 p. m., came another attack similar to the one which had occurred on Saturday but the paralysis was more marked and lasted longer. In this attack the left arm and leg were affected and the right side of the face also. The paralysis lasted eight or ten hours. At 8:30 p. m. the temperature was 102, pulse 100. There was some vomiting. Enemas were used to move the bowels, and acornite to reduce the pulse and temperature.

On February 5, at 10 a. m., the pulse was 90, and the temperature 99.2 degrees. There was no stomach sickness and the patient was resting very well. The bowels had moved freely. A light diet and rest in bed was ordered, while salts and potassium iodide were administered. At 7:30 p. m. the condition was as follows: Pulse 80, temperature 99.2 degrees, and the patient resting very well in every way. The bowels were active and there was no stomach sickness or headache. Friday, February 9, there was a peculiar attack about 10 a. m. The child complained that her jaw would not work and the side of her face twitched, yet at the same time she was complaining her jaw was set, she was using it in speaking. She seemed much excited and appeared apprehensive and very nervous. Some morphine was given and when she became quiet she refused to talk. No account of globus could be obtained either at this or previous attacks. On February 10, at 8 a. m. another attack occurred. At this time the chief complaint was of a lump in the throat which the child could not swallow and there were twitchings of the muscles on the right side of the face, and other hysterical manifestations. A mental element was a fear that she was going to die, a thought that the child dwelt upon either because of a well grounded fear or to stir up her parents. At 11 a. m. another slight attack followed which ended in vomiting. A few mild attacks of a hysterical nature occurred every few days and finally on March 3, I was called to prescribe for a dazed condition into which the girl had fallen. A history was had of her having eaten nuts, popcorn, and other things, which seemed to point to the stomach as the cause of the trouble. An effort was made to empty the stomach and bowels. This was accomplished by emesis and catharsis, but the mental apathy remained till the next day. Since then there has been an uninterrupted recovery with outdoor exercise, absence from school and a well regulated diet. To be sure, on the advice of friends of vast experience, a vermifuge was administered by the parents, and an osteopath was called to rub out a little spell one day.

A minute and extended account of this case has been made in order that the members present may pass upon the diagnosis made by the observer, and to secure an enlightening discussion of this interesting patient.

The diagnosis made in the first three attacks, and concurred in by a consultation called in to pass upon the question of meningitis which was uppermost in the community at that time, was that they were caused by intra-cranial hemorrhage, very probably of the meningeal type, as evidenced by the turning of the head and eyes away from the lesions. The cause for this lesion lies perhaps in the presence of whooping cough, the habit of excessive rope jumping, and habitual overloading of the stomach. Following this there occurred an irritative lesion of the cerebral structures, resulting in the hysterical phenomena described and the extreme agitation shown in the out-

breaks. Then the quick wit of the child taught her a way by which she could have what she desired, simply by the accomplishment of a little byplay when a pain gave an excuse. The whooping cough cleared up quickly after this time. Much of the trouble could have been avoided in all probability if the parents could have been restrained from talking over the girl's condition before her which they constantly did and by so doing the child early realized that she was the center of the household.

The treatment instituted was at first to enjoin perfect quiet, and a tonic containing iron and iodides was given. For the cough antipyrine was exhibited. In the convalescent period outdoor exercise was advised, close work and reading was limited, and school was interdicted.

P. S.:—A report from the mother about May 1 states the child seems perfectly well at this time.

As a conclusion will state that a week ago the mother reported the child perfectly well. She has not been in school at all since this trouble and she has been out of doors a great part of the time. I think from the report of her mother she has fully recovered.

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### DISCUSSION.

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DR. TAYLOR.

In speaking of whooping cough without the whoop, were there distinct paroxysms in the cough?

DR. LITTLE.

Yes sir; she would have probably from one-half dozen to ten or twelve a day. She developed a characteristic whoop once or twice.

DR. TAYLOR.

I would think that the diagnosis of a cerebral hemorrhage would account for the first symptoms as it is not at all rare in cases of whooping cough to get those hemorrhages the result of severe paroxysms of coughing. The conditions which followed probably were intensified by this shock, and I believe the gastro-intestinal disturbances were responsible for that. Referring to the part which intoxication of intestinal origin may play in disturbances of the nervous system, I have seen a case in the last two years in a child about four and one-half years of age, who developed almost the regular systems of fetit mal in which the symptoms have entirely disappeared without a single dose of bromides or other sedatives. The entire treatment being directed to his general condition and correction of the intestinal disorder which I found present.

DR. LITTLE.

I might say a few words further: This occurred during the time



of the agitation of cerebro-spinal meningitis in Texas, and we sent three men from our county down into Texas to study the situation which made the situation very tense up in our neighborhood, and the family were anxious to know if this were meningitis, although my own diagnosis had been given that it was not meningitis, and the consultant called in was one of the men sent down to Texas.

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### CAISSON DISEASE.

BENJAMIN H. BROWN, Muskogee, Oklahoma.

In selecting the theme for this paper, with but a short time in which to decide, I was governed by two considerations. The first was the interest which the subject, in the abstract, has for the practitioner, and the second, the possibility of a local and practical application. However, engineers have since informed me that, so far as they know, no compressed air work has ever been done in this state, and that, from the geologic conformation of this region, they see no reason why any such necessity will arise in the future. Heretofore, where excavating of any importance has been necessary, the rock has lain so near the surface that it has been feasible to utilize cofferdams. What is perhaps the most interesting piece of engineering of this kind in the state, now in course of execution, is the tunnel under the Arkansas for the conduct of the water supply for Muskogee and this is being driven through a stratum of impervious rock, which obviates the necessity of cofferdamming. Nature having thus located so close to the face of the everlasting rock that the foundations for our skyscrapers and bridges can be put down with the minimum of expense and danger, it is not probable that any of us will ever come in personal contact with this malady. Still it may not be amiss to give a brief resume of the most salient features of this condition, with which I have had some experience in another state.

Caisson disease, or compressed air sickness, is, as you all know, the term applied to a group of clinical phenomena arising among divers and workers in caissons. A caisson is a large hollow cylinder, open at the bottom, but airtight elsewhere, used in excavating below the water line or through quick-sand. The cylinder, whose lower border is provided with a cutting edge, sinks of its own weight, as the excavation progresses, and the level of the water is prevented from rising within the caisson by pumping air into it. Ingress and egress for men and materials is provided for by an air lock with two valve-like doors.

On entering the compressed air the symptoms are few and unimportant. As a rule the most serious complication that can arise at this stage is the bursting of a tympanic membrane through the eustachian tube being occluded. The men very solicitously guard against this being "plugged," as the accident is termed in the "sand



hog" vernacular, and as the pressure rises in the lock, inflate their ears by swallowing, and by forcible expiratory efforts with mouth and nostrils closed. Once in the caisson there is little discomfort, at least among the seasoned men. On the other hand, most of them say they feel exhilarated, and able to work more energetically than on the surface. This is probably due to the high degree of condensation of the inspired oxygen.

When the extra pressure is below 20 pounds there are no symptoms on leaving the air, aside from possible ear trouble, no matter how fast the decompression. Above this pressure, however, and in direct ratio to the amount of extra pressure and the speed of decompression, the phenomena of caisson disease proper arise. The most common of these is the "bends," consisting of excruciating pains in the joints, especially of the lower limbs, and sometimes in the abdomen, accompanied or not by nausea. Perhaps next in frequency come the "staggers," or vertigo, while dyspnoea, or the "chokes" is said to be rare. I have never seen a case. In my experience most of the cases of bends and staggers are transitory, as a general rule being relieved by recompression in the hospital lock before the arrival of the doctor, or perhaps without calling a doctor. It is true that most of the cases presenting the fourth and last symptoms, paralysis, are also so relieved, but as a rule, it is this last symptoms, paralysis, are also so relieved, but, as a rule, it is this class of cases that come into the physicians' hands for hospital treatment. Fortunately, most of these paralysis are only temporary, but they are troublesome while they last, and sometimes persist, even causing death by secondary complications. While the great majority of these central nervous affections are paraplegias, involving the lower limbs and sphincters, necessitating catheterization for a more or less extended period, they may be of any type and may even come on with the suddenness and completeness of an apoplectic stroke. It is stated that 61 per cent of the cases among the workmen on the Eads bridge at St. Louis were paralysees, but such statistics obviously take into consideration only the more severe cases. Of perhaps 25 cases coming under my observation, there were only three of paralysis. These recovered sufficiently to leave the hospital in from one to two weeks and were then lost sight of. They were all paraplegias, combined sensory and motor.

The result of post-mortem examinations, and of animal experimentation has left no doubt that the symptoms are due to the liberation of bubbles of nitrogen in the circulation and tissues during decompression. According to Dalton's Law, the absorption of gases by a liquid is proportional to the pressure. Thus, under an absolute pressure of three atmospheres (additional pressure of two atmospheres) the blood is capable of absorbing three times as much nitrogen as at the normal air pressure. If this pressure is suddenly

removed, the gas is given off so fast that it forms bubbles in the blood and in the lymphatic spaces, and in the synovial fluid of the joints. In the latter locations they give rise to the phenomena of the bends, while in the terminal vessels of the spinal cord, if not caused to re-dissolve by compression, they may cause anemic infarcts, and these, areas of local necrosis. It is not believed that bubbles of such size as to lead to pulmonary embolism are formed.

The treatment follows as a corollary on the heels of the above ascertained facts, and is two-fold. First is prophylaxis, which consists of a careful regulation of the speed of decompression in accordance with the degree and duration of compression. Some accomplish this by working each shift several hours and consuming an hour or more in decompression, while others work shorter shifts, and employ correspondingly shorter decompression periods. Thus, in the work with which I am familiar, when the excess pressure is below approximately 32 pounds, each man is in the air two shifts of one hour each in the 24 hours, and decompresses in five minutes, while in excess pressure of 32 to 40 pounds the shifts work only 45 minutes, and decompress in five. This company deserves its reputation for carefulness, and there is no doubt but that most of the casualties on their list are due to the eagerness of the men to get out of the lock. The men in the lock have themselves control of the valves, and I have frequently timed them coming out in two or three minutes, where they are supposed to consume five. What may be called the specific treatment, and practically the only treatment, aside from the symptomatic, is recompression in a hospital lock, immediately on the onset of symptoms. These hospital locks should be immediately contiguous to the work, and in fact this is made mandatory by law in several states.

The results of this treatment is well shown by statistics of some of the more important works before and after the general adoption of recompression for symptoms. In the first period there were reported for the Brooklyn bridge 110 cases with 3 deaths; for the St. Louis bridge, among 600 workmen, 119 cases with 14 deaths; for the first Hudson river tunnel, before the medical lock was instituted 12 deaths among 50 workmen, or a death rate of 25 per cent. After the institution of the hospital lock on the Hudson river work, the death rate fell to 1 per cent, while, with modern precautions, the Firth of Forth bridge, the Blackwell tunnel, and the Baker street and Waterloo tunnel were completed without a death from caisson disease. In our own country two bridges have recently been put across the Mississippi at St. Louis with a combined death list of 3 men.

I have made no attempt to give credit for the sources utilized in the preparation of this informal paper. To those desiring further information on the subject the monograph on "Compressed Air Dis-

ease," by Peter Bassoe, reprinted from the report of the Commission on Occupational Diseases, is recommended, both for its lucid presentation of the subject, and for its bibliography.

*(Read and filed with Muskogee County Medical Society, November 25, 1912.)*

## ASSOCIATED NERVOUS DISEASES OF WOMEN.

DR. D. M. MONTGOMERY, Marlow, Oklahoma.

By associated nervous diseases in gynecology, we mean those reflex nervous phenomena that are due to pathological conditions that act as a source of irritation to sympathetic nervous centers, and bring on a train of symptoms that are so variable in different patients as to make them extremely difficult to describe. To this group belongs hysteria.

Hysteria is a symptom that belongs to a great many gynecological conditions and is never a disease per se. I do not believe in the theory that is taught and has been disseminated for ages, that hysteria is a functional disorder of the nervous system, and that no disease of any of the organs that is found existing at the time should be given any importance. On the contrary I have found that in every case there is a disease producing the irritation and the nervous trouble is the natural outcome.

The diseases and conditions accompanied with hysteria are: lacerations, erosions, and most any other disease that will produce irritation of the cervix uteri. These I believe will explain more than half of all cases of hysteria, dysmenorrhoea, amenorrhoea, chlorosis, ptosis of pelvic and abdominal organs, ovarian disease, pregnancy, floating kidney, chronic appendicitis, excessive urea, Graves' disease, metritis, endometritis, onanism, puberty, climacterium and shock: other diseases or conditions probably that I can not recall.

W. H. Freund taught that irritation of the nerves of the genital organs by sclerosing connective tissue, an inflammatory focus gives rise to reflex symptoms. He thinks these lesions act reflexly through the spinal cord, and the cerebro spinal fibers, but especially through the sympathetic by which the genital system is richly supplied. He said that hysteria is that disease, in which there is clearly noted, coming out from the diseased area, and also called forth by examination, reflex neuroses, which according to their place of manifestation, must be called, sympathetic, or spinal or cerebral. To this neurosis, sooner, or later, is added a psychic reaction differing according to constitution, inheritance and bringing up.

Brose says that in almost all severe cases he finds parametritis atrophicans. He thinks chlorosis is a cause, and thinks as I do, that hysteria is a secondary, and not a true psychosis.

Mackenrodt finds all causes located in the sexual organs. He



thinks the local condition acts for years, until a strong psychic irritation occurs and then a psychosis results.

Shaeffer's ideas are correct when he says that retroflexion, combined with *ren mobilis*, *enteroptosis*, and loose abdominal walls, are closely related, etiologically, to psychic conditions. He thinks that all gynecological troubles, especially inflammatory, may give rise to hysteria.

Lippman says that hysteria is a disease of the central nervous system, which in predisposed cases can be started in various peripheral parts of the body, through various diseases of those parts, most frequently from the genital system and sometimes from the ovaries. He mentions a case of a girl who menstruated at the age of twelve, with pain in the ovarian region. For the first year and a half the attacks followed a monthly type and then became almost constant. She then developed fibrillary twitchings, temporary contractions, convulsions, and finally opisthotones of long duration. She was operated on at the age of twenty-six. One ovary was cystic and the other contained a dermoid. The attacks stopped and in a little while she was well.

John F. Kuhn, our distinguished chairman, said in a letter to the writer: "Hysteria is a disagreeable term to use in the presence of a patient and her family and friends. So I have given it up and speak now of reflex nervous troubles. It is less disagreeable and in the long run covers a multitude of sins." The name adopted would lead us to think that he believes it to be a reflex neurosis.

We had a case of a poor widow, with five small children to support by her own labor, that suffered from a very grave form of hysteria. She would fall on the floor and remain unconscious for hours. She had convulsions, opisthotones, and all the worst symptoms, including nervous dyspepsia and a nervous heart. On examination was found a torn cervix everted and eroded to an extreme degree. This patient was operated on. The cervix uteri was sewn up after all scar tissue was carefully removed. The parts united beautifully and she made an uneventful recovery and has never had a symptom of her former nervous troubles. In a few months her complexion cleared up and she looked robust and strong with the bloom of youth on her cheeks.

I have seen so many cases improve and the psychological symptoms withdraw from a few applications of tincture of iodine spiked with carbolic acid to an eroded cervix.

We were called in consultation to a case five months pregnant that had had spasms every day for two weeks. It was during the epidemic of meningitis in our town and all the neighbors were afraid of her because her symptoms resembled the symptoms as described in the newspapers at that time.



One very able physician thought probably that she did have a very unusual type of meningitis and a lumbar puncture was decided upon as being the best way to clear up the diagnosis. The cerebro-spinal fluid being perfectly clear, we only withdrew about fifteen c. c. and left the patient perfectly relaxed, and since which she has never had a contracture, or spasm or any other symptom of reflex neurosis. I do not know how the spinal puncture cured this woman, but that it was instrumental in her recovery I have no doubt. It might have relieved her by lessening the cerebro-spinal pressure and thereby relieving the spinal irritation. It might have been by suggestive therapeutics, making such a strong impression that she was getting the necessary treatment. I do not believe the benefit would have been permanent if she had been relieved by suggestion only. I can't believe it was a coincidence for she was getting worse from day to day. I shall try the puncture again if I ever have another case like this one that will not give to ordinary treatment and the cause is such that we can't remove it.

Let us not treat these cases lightly nor join with the hordes that they are feigning, and laugh and make fun of the poor sufferers. Did you ever see a doctor smile and say she just has hysterics, and leave the impression either expressed or implied that it was a joke and the poor woman writhing in mental agony and nervous torture beyond description. Let us hunt for the point of irritation and in doing so look well to the cervix uteri, for there you will find the lesion in fully half the cases. You treat the local disease and get it well and at the same time tone up your patient with good tonics, keeping constantly in mind the constipated conditions that usually accompany these conditions, and you will be rewarded by seeing them get up and make a useful wife and mother, rear a healthy family of children that are not neurotics, and thus do a great service for the country as well as for your patient and family.

Don't believe anybody that teaches you different from this teaching, but go into the field of work and there toil and study and learn the truth by hard experience, the best teacher on earth, after all.

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## DISCUSSION.

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DR. LANDRUM.

I want to say that I agree with Dr. Montgomery in the statement that hysteria is a sure enough disease and that it is nothing to laugh at, and is serious to the doctor at least for it is sure hard to manage, but it is not alone a disease of women and children but a disease of men. The worst cases I ever saw were men. We had a case down here caused by a cyclone. The man was deaf and mute, and when we pulled his leg he talked. That was a case of hysteria for any one knows that pulling a man's leg will not restore organic deafness, but after he began to talk he could talk as any ordinary man.

It is a fact that many men have hysteria and of the ordinary type of feminine hysteria, and the cause is legion. There is no particular point on which you can place the origin of it. It is also a reflex disorder. Sometimes you can cure it and sometimes you cannot. The first time the patient is attacked is the time to attack the disease and not after three or four years duration.

DR. BOYLE.

I have enjoyed this paper most thoroughly for I have been annoyed by those cases more than most physicians. I usually make a most thorough examination and find nothing. I wonder what they pulled that fellow's leg for. I had a case of a girl seventeen years old, just about the time we were having the spinal meningitis scare, and she apparently had a case. She did not know me at all or any one else, and would say, "Oh my head!" And would throw it back and no one could straighten it out, but she would straighten out nicely when under the influence of morphine. That didn't cure her and I had to give her several doses of morphine and it was three or four weeks before she yielded to the treatment. She finally got apparently all right.

I have had a number of cases of women who have had repeated attacks of hysteria, who afterwards developed some very serious trouble and died with it, and I find it is usually a serious condition. Now I remember the first case I ever tried morphine on. It did me more good than anything else ever did. I went to see a woman and stayed with her two hours and gave her morphine until I was afraid to give her any more. And I would go and stay with her and lose half night's sleep and then go and leave her completely prostrated. The first time I gave her one-fifth of a grain of morphine and she vomited nearly a bucketful and never had an attack after that time when I was around to get after her. Two or three young men came to town afterwards and when she could get one of them she would have an attack, but she never had it when I could get to her. Some of these cases are purely psychic. It may be there is some reason for that. Whenever I have a case of this disease I never state to the woman it is a case of hysteria. I call it anemic trouble, and if I had a bigger word I would use it.

DR. MONTGOMERY.

There is something to these cases we ought to look after and that is to find out the point of irritation and get these women well. I think sometimes they are neglected more than any other class of cases because we are too satisfied to give a hypodermic and that is all that is done until they have another spell. I believe we ought to give them our careful attention and locate their trouble and try to relieve it.

## THE LOSS OF HEARING IN ONE EAR FROM INJURY.

DR. J. H. BARNES, Enid, Oklahoma.

This patient was in a railroad wreck and was struck on head over right ear, supposedly by the head of a man sitting facing him in the car. Patient is white man, fifty years of age, lawyer of considerable ability. He was on the train facing a gentleman when another car struck his train. The gentleman in front of him fell forward and struck the lawyer on the side of the head over and just above the right ear. He was unconscious for a few hours. When he became conscious he was very dizzy and had a roaring noise in his right ear. He had a large hump on the left side of the head opposite where he was struck on the ear. His back was slightly injured, otherwise he was in good condition except he was totally deaf in the right ear.

He was taken to a hotel where he was soon able to go about. He felt peculiar, could not describe his feelings, was sore and it was hard for him to think well. His ear felt as if it was full of water and perfectly dead. Had a constant roaring in the one ear and was slightly dizzy at times when he first got up in the morning. His equilibrium was perfect, turning or reclining did not make him dizzy. There was no nystagmus.

I saw him about four days after the accident and found the ear drum normal except there was a slightly red perpendicular line on anterior portion of the drum membrane as if it had been creased; it disappeared in a few days.

The eustachean tube was open. There did not seem to be any fluid in the tympanic cavity when I saw him. He said it felt full and roared all the time.

His hearing was: R. a.e. O. b.e. 10-30, L. a.e. 30-30, b.e. 15-30. There was no hearing either for the high or low tone forks. The voice was not heard well if left ear was closed.

This ear soon got interesting to me when I found that this man could not hear out of his right ear or that he was pretending to me that he could not. He is a shrewd attorney and naturally rather nervous, and his nervous condition seemed to bother him as much as his ear did. I did my best to find out whether this man was a malingerer or not. He did not appear to be badly hurt and I could find out but very little about his ear except he could not hear out of one ear and the other was perfectly good.

It would not be so hard to diagnose a pretended deafness where both ears are deaf as it is with one deaf ear. It is impossible to close the normal ear so as to exclude all sound.

I will give a few tests that Politzer names which I used.

I blindfolded the patient in all the tests that I used so that he could not know what I was doing and not be aided in the least by

his eyes. The first test was with the tuning forks. I used the C2 fork for the Rinne, Schwabach and Webber tests. It was a thirty (30 sec.) second fork with the result as given above; R. ear a.e. 0-30 b.e. 10-30. L. ear a.e. 30-30 b.e. 15-30. I prefer recording the hearing this way for it gives all three of the standard tests in one formula and also gives us some idea as to the time of hearing the fork as well as the extent of the deafness.

I wondered about the bone conduction being 10-30 with a complete loss of hearing for the low and high toned forks and the whispered voice so the left ear could not hear it. This bone conduction was explained later.

I then tested his good ear with loud ticking watch and voice, first with ear open, then with it closed with wet finger. I compared this with other normal ears; and found the distance which he could hear was about normal. I did this on different days and found the results practically the same.

I then took two ear speculums and closed one of them with wet cotton, and put them one in each ear and testing his hearing with the closed speculum first in the normal ear and then in the injured ear, it never effected his hearing when the deaf ear was closed and the normal ear had about the same hearing as when it was closed with the wet finger.

I tried talking to him at different times when I was making the examination, and found that he could not hear as well on the right side as he could on the left. None of these tests proved anything entirely satisfactory to me.

I then went back to the bone conduction, for he told me that he could hear the C2 fork ten seconds by bone conduction and could hear it five seconds longer in the good ear. He could hear by bone conduction 20-30 in sound ear when his wet finger closed it. When this was done in the injured ear there was no difference in bone conduction. This demonstrated to me that he did not hear by bone in the injured ear but instead it was transferred to opposite ear. Bone conduction was increased in right ear to 15-30 when left ear was closed.

There are three or four things that may happen from an accident of this kind. The first we think of is fracture at base of skull extending through the petrous portion of temporal bone. Second, the oval window could have been opened by a dislocation of the stapes, or it could have been driven into the window. Third, the round window could have been ruptured by the sudden condensation of air in the tympanic cavity. It had evidently pushed the tympanic membrane in from the crease that we first saw on it at our first examination. Fourth, concussion of the internal ear. The pushing in of the drum membrane so as to cause a paralysis of the delicate organs of Corti.



The drum membrane not rupturing made the concussion more violent and destructive to the organs of the internal ear than it would have been had it ruptured.

Now to try to give the symptoms of these conditions and tell just what did happen, is beyond my ability, but this I do know that he cannot hear and as far as I could see the ear was normal. The drum was normal and the eustachian tube was open. There are a few symptoms that may help us some and from these I have ventured to make a diagnosis.

The first thing we look for in injuries of this kind is fractures that are often shown in the external ear by extension of the fracture. It may extend into the nose. There may be hemorrhage from the ear or the nose, and a discharge of a bloody serous fluid like spinal fluid. There will be a loss of hearing, great dizziness, loss of equilibrium, tinnitus, and vomiting. Meningitis usually follows a fracture, the infection following the line of the fracture. The extent of the dizziness and the equilibrium will depend on the location of the fracture. There were no external signs of fracture, and the patient seemed to be fairly well except that he was nervous and worried as if his brain had received some of the shock; he complained some of his heart and breathing. He was only slightly dizzy at times, had some tinnitus, no vomiting.

If he had a rupture of the oval window or the membrana secundaria the perilymph would have escaped as it would do in fracture, and he would have had practically the same symptoms as in a fracture. His equilibrium would have been greatly disturbed with severe dizziness, and the internal ear open to infection through the eustachian tube. It was wide open as was demonstrated several times. There would be some exposure of the meninges to infection through the internal ear and meningitis would likely follow.

By exclusion we have made a diagnosis of concussion of the internal ear, paralyzing for a time at least, the organs of Corti. The symptoms would be a total loss of hearing both by air and bone. There would be tinnitus, and dizziness, the ear would feel dead and full if the stapes was pushed into the oval window. The equilibrium may be more or less disturbed depending on the condition of the vestibule and the semicircular canals.

This form of injury gives a more favorable prognosis than a fracture or rupture of the membrane of the oval or round window. There has been some cases of concussion reported as partially or completely recovered. Concussion is not always complete, these often get better.

This case has been four months now and is no better.

## DISCUSSION.

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DR. FERGUSON.

That was a very interesting case report by Dr. Barnes. As to my ability to throw any light on the diagnosis, I am afraid I could not do so. I am inclined to believe he has had a fracture or hemorrhage directly into the labyrinth. One thing about the case and that is the absence of the symptoms of trouble that might indicate this was the condition. However, in all probabilities in this case there has been an injury to some part of the labyrinth.

DR. LUKENS.

The circumstances leading up to this case and the fact that he has a railroad to deal with might have something to do with the case. If the railroad did not have to pay damages it would not be a strange thing in my mind—I am not referring to names or any individual, because I do not know the name nor the individual—and I am not referring to any particular person—if he recovered. In the first place I do not believe a man could have had a rupture of the internal membrane that would not have shown. He could have had a rupture, of course, if the blow or the concussion was powerful enough. The doctor has made a careful investigation, and, of course, conscientiously and with the idea of detecting any injury; but some of these patients are very shrewd and do get biased. I have a case which will come before the Federal Court in June where they got by me and three army surgeons. The man passed as a blind man and got by at least three good surgeons. And in my work for the past twenty-two years I have noticed those fellows are very shrewd and you have to be on your guard to wait on any such conditions. I have in mind a man that came to my room requesting examination and he talked rather freely and seemed, although he could hear me very well on the questions of examination, his wife said he could not hear me. I told her to go into the other room, and then the man could not hear a word I said after that and I could not figure him out. I tried everything I could and could not figure out any way to find out whether he had stopped hearing. Finally I asked him how much he weighed and he said one hundred and fifty-five—I was having to talk to him like he was deaf—and I said, “I don’t believe you weigh that?” And we went in to the scales to weigh him and I ducked my head down so he would not see the motion of my lips and said, “You weigh one hundred and ninety.” He spoke up quickly and said, “I do not do any such thing.” And I said, “Your hearing is not bad, I will pass you up.” I caught him off his guard.

The doctor can thoroughly investigate to determine the injury and not do so.

DR. WESTFALL.

I do not think of anything I could add to the case. In regard to a case I heard through the telephone company, but never saw, the power happened to be turned on and the man picked up the receiver and put it to his ear and claimed that thereafter his hearing was impaired and threatened to bring suit against the company, but as far as I know never did it. There are two cases I heard of. One in the eastern part of the state that was going to come up, but never did. It was always a question to my mind just what the power would do. He claimed just as he put the receiver to his ear Central turned on the power and impaired his hearing, and that was about six months later and he claimed his hearing was still impaired.

DR. MCHENRY.

I do not think I could add anything except a test I have seen used. I never saw any one use it but in Indiana. They used a tuning fork, I think it was a high "A." They would use two forks exactly alike and put one on each side of the head from behind and then take one away and then the other and the sound is the same and the patient cannot tell which one you have when you first take one away and then the other if his hearing is normal, but if he is deaf in one ear he can tell it. Dr. Alexander calls that his best test. You try that and you will see you will not be able to tell which fork has been taken away. I think the fork was a high "A," but I would not be sure.

DR. FERGUSON.

I think it was a middle "C."

DR. MCHENRY.

It might have been, but I think it was a high "A."

DR. DAVIS.

It is a low tone is it?

DR. MCHENRY.

I have got it in my note book and will look it up. I am under the impression it was a special fork and a very small fork. I do not see what I could add to the doctor's paper. It seems that those four months without any improvement of that man indicates a permanent deafness, and it must be in the internal ear. However, it is hard to understand how his bone conduction is 10-30ths. That is too high to be conducted to the other ear.

DR. DAVIS.

As a rule when people in those cases have a case against a big corporation they develop all sorts of symptoms. A man I have in mind is a particularly intelligent sort of man and has a reputation of being very shrewd and he finds he can hear the fork on the affected

side about ten seconds, and I wonder if he was not doing that to throw us off the track. I have no doubt but what the man knows as much about the ear as any of the rest of us.

DR. STOOKSBURY.

This is quite an interesting case and I could not add anything to it, but it strikes me in the history that there must be some injury in there. I have had some that were touching along this line and I have found it quite difficult to work the fellows out, especially when they are shrewd men. Of course, you have some symptoms of trouble there, but as to what it might be, whether a hemorrhage or concussion or something else that is hard to tell.

DR. BARNES.

This man is a little dizzy in the morning, so he says, but he has no loss of equilibrium.

DR. STOOKSBURY.

This could have existed previously.

DR. BARNES.

The man cannot locate sound. If you speak to him on the street and are behind him he cannot tell where you are. If he hears a buggy coming he does not know which way to run. I have seen that demonstrated. I left that out of the paper, I do not know why I did. He cannot locate sound at all. I expected to be criticised more on my diagnosis, because it was a venture, but I made the diagnosis in order that it might help on this case. I am still of the same opinion that the man has a concussion and not a fracture or rupture or hemorrhage. There are cases on record where there has been total deafness from concussion of firing cannon close to the ear and so forth.

Another point I consider in this case is this man claims he can hear on his right side. That is a point in favor of his not being incorrect. If he wanted me to think he could not hear he would not tell me that, for he does not know anything about bone conduction. I took it a number of times and it was always the same. He did not know what I was doing. He tells me he can hear—by bone conduction—on this side, but I am satisfied that he hears it in the left ear. There are the other different examinations, by the Weber test and he could not tell which ear he hears it in. Put it on top of the head and he would not tell you he did not hear it, he said he heard it, and the noise is all over his head and not in the right ear. He will not tell you it is in the right ear, but all over his head and he cannot locate it and so I do not believe that the man is misrepresenting, but I believe he has concussion and total loss of his hearing that will not return.

About the tuning forks. I never used that and I think I will use that test. It might be of some help. I tried other things in ref-



erence to that hearing. I would get on different sides of him and speak and he would not hear as well on the left as right. The forks may be of some benefit.

I have nothing more to add. I thank you for your attention.

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### OBSTETRICAL SURGERY.

T. B. COULTER, M. D., Chickasha, Oklahoma.

In contemplating this subject that I have chosen to set down a few thoughts concerning, I am fully cognizant of the magnitude of the work. So in order to set your minds at ease, I will state, in the beginning that it is my purpose to take up only a few of the indications for surgical interference in obstetrics, and endeavor to touch on those points which will be most productive of debate, and thus bring forth the ideas of the general profession on these questions.

The path of the obstetrician since time immemorial has been strewn with difficulties, as is positively proven by the fact that the Lord himself found it expedient to put Adam into a deep sleep before bringing Eve into the world, since which time the Adams have been content to be the fathers of men.

When we consider the birth of a child two hundred years ago, with no knowledge of the mechanism of labor, no obstetrical instruments, no knowledge of asepsis or antisepsis, and no anaesthesia, we have cause to stop and wonder that the mortality of child birth was not higher and to realize that nature has many and efficient means of overcoming difficulties. But when we consider the greatly reduced mortality of both mother and child, with our modern knowledge and skill with modern instruments, we surely must give due credit to the pioneers who have made this progress possible.

The sole object of obstetrics is and always has been to solve the ever-recurring conflict between the mother and the child to be born. Fortunately, most births are relatively easy and there is no need of help. But in the sum total of our obstetrical practice, we find many cases which have to have help from some of the many causes which render labor difficult and spontaneous delivery sometimes impossible. In every case of eclampsia, placenta, praevia oblique, or transverse presentation, narrow or contracted pelvis, we witness a conflict unto death between mother and child. Usually, in general practice, even today, the case resolves itself into a question of saving the mother at the expense of the child.

In the pre-antiseptic period, caesarean section, or symphysiotomy were equivalent to a verdict of death for the mother and up to the last quarter of the nineteenth century, most of the great obstetricians never performed these operations. With the advent of forceps in 1747, a rapid development in the art of obstetrics took place, and with

a correct interpretation of the phenomena of labor came the demonstration that the most frequent cause of prolonged, difficult labor was a faulty or pathological constriction of the mother's bony pelvis.

The most popular therapy of narrow pelvis at the present time, except in some of the maternity hospitals and clinics, is the high application of the long forceps, a version and extraction of the child, or the induction of artificial labor at a time when the child is viable, but still small enough to pass through the bony ring of the pelvis. These operations, as well as caesarian section, and symphysiotomy have come to us from the pre-antiseptic period.

The present day knowledge of asepsis and antisepsis has taken away our chief indication of interference in many prolonged cases, as we know that with proper aseptic precautions the length of labor has nothing to do with child bed fever. Statistics from hospital records show that 80 per cent of the patients with contracted pelvis can be delivered without operative interference. This leaves a possible 20 per cent in which interference is necessary. This leads us up to the question as to what we shall do in these cases. Shall we deliver them by version, high forceps, or induction of premature labor, with the record of 10 per cent maternal mortality and 50 per cent fatal death rate, or shall we choose pubiotomy or caesarean section?

With modern methods of performing caesarean section and pubiotomy, the maternal mortality has been reduced to about 1 per cent, and with the much greater chance for saving the child, there should be little question as to what should be done provided there has been no previous infection, and the hospital facilities are adequate. Always keeping in mind that these methods are to be reserved for those extreme cases that offer no hope for natural termination of the labor.

With the improvement in surgical technic and increased safety in operative interference of all other branches of surgery, it seems discouraging that the obstetrician should lag behind in this general progress. Merely because these procedures are not as old as obstetrics should be no reason for not taking advantage of them.

Naturally first choice of the complete operations for the relieving of our patient, is recourse to symphysiotomy or preferably pubiotomy, this procedure through the successive improvement in technic, instituted by Gigli, Doederlein and Bumm changing the location of the division from the cartilaginous union of the pubic bones to an incision through the pubic ramus and from an open operation to a subcutaneous pubiotomy has reached a point so near perfection that good after results can be almost surely counted upon, as bony union almost always takes place, and if the union is ligamentous, it is still firm and may be of a positive advantage in subsequent pregnancies.

Naturally, there is a good deal of opposition to any radical operation of this nature, mostly founded upon prejudice, but in a measure

founded on the history of bad after results of a few years ago. These bad results can mostly be attributed, I believe, to faulty technic, and can be overcome by greater care in avoiding infection and in greater care after delivery, especially in supporting the pelvis holding the cut ends of the bones in firm opposition by sand bags, adducting the legs and tying the knees firmly together, and leaving a retention catheter in the bladder, in order to limit the necessary moving of the patient as much as possible, thus giving an opportunity for union of the bones to take place. With this care, the results are much better than with symphysiotomy and render the necessity for caesarean section rather remote.

In placenta praevia the danger in which we find the mother makes it almost imperative that we put forth every endeavor to save the mother's life, even at the expense of the child. This naturally leads to a high infant mortality. Here the preferred methods of treatment are the tampon, balloon dilatation with version and slow extraction of the child. With centrally implanted placenta, with unabridged pelvis, a vaginal caesarean section offers the quickest and safest method of delivery.

In eclampsia, as in placenta praevia, the effort to save the mother overshadows all consideration for the child. Here prophylaxis during gestation and proper medical treatment at the first symptoms of onset should save the necessity for surgical interference in most cases. Unfortunately, this does not always suffice, and it is necessary to empty the womb as quickly and gently as possible, in order to save the mother.

If the condition of the mother warrants it, a vaginal caesarean section should be done. This gives a rapid delivery and leaves a wound that can be easily taken care of. If the case does not seem so desperate, I believe the slower methods of dilatation and delivery should be instituted, as the after treatment has to be considered in choosing your method of delivery.

With a more thorough appreciation of the safety of complete operation in obstetrics, we will be more willing to wait in many cases and let nature have a chance to do its work, and only interfere in those cases which on thorough examination, show no hopes of a spontaneous delivery.

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## THE THROAT AND ITS VALUE TO THE GENERAL PRACTITIONER.

A. B. LEEDS, Chickasha, Oklahoma.

Unfortunately, but few of us are gifted with that inherent insight, that enables us, with the usual casual and cursory examination, to correctly advise and treat every case presented to us.

And, too, the field of medicine has broadened and expanded to



such an extent that, with all of our aids, we can not idly and carelessly establish a correct therapeutic aid in all of our cases.

This advancement and the increased knowledge of the laity regarding the various pathological conditions, their symptoms, methods of treatment and results, does not tolerate the previous hit or miss method usually pursued.

These facts and premises are particularly true when we consider the throat, its affections, their meanings, etc.

For until a few years ago, the throat specialist was the only one who gave this part of the human economy any intelligent consideration, yet, the bacteriologist, the pathologist, the general clinician and the pediatricist has each enunciated such important truths, regarding the throat and its relations to the rest of the body that we have, at the present time, a wonderful insight into many pathological conditions, of both the young and the old.

With a thorough conception of these conditions, we should and will have an intelligent idea of what the throat really shows.

With fully one-third of all fatal pyogenic infections associated with anginas, as an initial lesion, and the very common affectionation of a sore throat a result of many causes, particularly, often only a part of some general systemic affection, it behooves us, in treating these cases, to avoid serious complications and often needless sacrifice of life by using more care and thoroughness, in our work, and not permit the statement to be true that "at least 20 per cent of all the cases, seen by the average physician, are not properly examined when he sees the case the first time."

Time will not permit of a thorough or even partial discussion of the intimate anatomical relations of the throat and only those portions will be mentioned which are associated with some point at issue.

In this discussion, we will consider that the throat is the upper and funnel-like portion of the alimentary canal and is more or less intimately associated with the nose and ears.

Needless to emphasize the fact that any irritant which destroys the vitality of the epithelial covering of the mucosa or a local congestion which interferes with the nutrition, circulation and secretions of the parts, offers a favorable condition for the culture and growth of the bacteria, normally present, also, anything which causes a lowering of the general health thereby lessens tissue resistance and acts as a predisposing cause to local inflammation, also we know that the germs themselves excite inflammation by their active growth.

The tonsils, with their crypts, spongy tissue and lymphatic connections, are aptly likened to a portion of a sewerage system and so long as the epithelium of the crypts is in a healthy condition, infection



is prevented while when the cellular tonicity is impaired, infection promptly occurs.

When the mouths of the crypts are closed by irritation or concretions and the drainage of the sewerage is stopped, infection very promptly penetrates the epithelium and enters the system.

With the tonsils diseased, they become portals of systemic infection and as a result of a previous tonsillitis or by infection from retention in diseased crypts, we frequently have any of the following conditions, as a resultant systemic tonsillar infection, as aneurysm, appendicitis, meningitis, iritis, pleuritis, pericarditis, endocarditis, pneumonia, paraplegia, nephritis, osteomyelitis, orchitis, general sepsis, various and multiform skin eruptions, tuberculosis and rheumatism.

It would seem that this category would be sufficient, yet, as both the sensory and motor nerves of the larynx are derived from the same pneumogastric trunk of nerves, any irritation along the whole path of this trunk may give trouble in the throat.

Conditions remote from the throat and respiratory system often cause a cough, with an absence of expectoration.

Morbid conditions of the liver and kidneys are often accompanied by a cough and sore throat, which will be corrected by proper regulation of diet, mercury and soda, without any treatment to the throat.

A correction of the irregularities of the nervous system is the only treatment indicated and needed, in the hysterical cough and sore throat of young women.

A removal of nasal obstruction, foreign matter in the external auditory meatus and bad teeth will often promptly relieve a frequently repeated dry cough.

A cough, due to impure air hindering metabolism, is a remonstrance of nature and lots of pure air is the best remedy.

A cough, with a slightly greyish expectoration, in people, in the towns, during the winter months, particularly noticeable in the mornings, should not cause any alarm or call for any treatment as it is due to the natural reaction of the bronchial tubes to the irritation of inhaled soot and this penalty of our modern civilization should be instantly recognized and corrected.

A local and very deceptive cough is often due to a relaxed uvula resting on the base of the tongue.

With the fauces injected and the mucous membrane bright red, in every incipient case of rheumatism, as well as an extension of the inflammation to the tonsils, with a follicular or parenchymatous tonsillitis, we have a danger signal to watch and examine, repeatedly, the heart, so as to avoid a possible pericarditis or endocarditis.

A latent and slumbering systemic infection often is shown by a septic sore throat and a great many times pain and soreness in the neck, neuralgia of the ear, side of the head, nose, teeth and gums or the antrum of highmore is nature's cry against diseased tonsils.

A proper clean up and clean out of the system, with little or no attention to the throat, will usually promptly correct the average cold in the throat, head or chest.

A spasm of the spinal muscles enervated by the posterior branches of the spinal nerves often cause a tenderness and hardness, of these muscles, which simulate a cold or sore throat.

Many conditions, difficult to correct, unless the cause is recognized, are caused by swallowing the mucus, germs and toxins elaborated from decayed teeth.

The danger on involving the bronchi and resultant serious illness can be mitigated by recognizing and correcting a tracheitis or catarrhal condition of the windpipe.

The soft palate, pharynx and tonsils are the sign boards of any inflammatory affections of the throat and internal causes are at fault for nearly all cases of definite tension, odema or relaxed condition of the throat.

The possibility of any of the acute infectious fevers should be considered with the inflammatory affections of the throat.

Thus, many other phases of this subject could be considered, but as many vital, important and most practical points have been mentioned we must conclude, from the facts deduced, that the throat is a valuable and willing aid in diagnosing and correcting many of the ills of mankind and if these aids are correctly interpreted we can materially assist in establishing an equilibrium necessary to the enjoyment of good health.

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## DISCUSSION.

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DR. FERGUSON.

I would suggest we make Dr. Leeds a member of the section on the Eye, Ear, Nose and Throat. I enjoyed his paper very much and the conditions he mentioned there to us. The secretions as the doctor mentioned helps in the diagnosis of many of these troubles. The tonsils have been condemned so thoroughly in the last few years that there is very little to be said further on the subject, except probably to emphasize to a still greater degree the diseased tonsils—the danger of tonsils which are not in a healthy condition. The question comes up often as to what to do for the correction of tonsil trouble and it seems to be a pretty well fixed opinion that the removal of the tonsil was injurious to the general health, to the voice, and produced general

weakness of the lungs. That notion moderated to a great extent by the rather systematic teaching of physicians generally as to the danger of the tonsils.

I do not wish to go into the discussion of the Doctor's paper any further, because he has given these points so nicely regarding the relationship of the throat to general diseases in which the general physician has to treat.

DR. NEWTON.

The paper was very thorough and the ground covered well. The condition of the tonsils has been gone over so thoroughly that there is little remaining to be said. We are pretty well united on the question.

DR. WESTFALL.

The fact that the throat acts as an indicator, as mentioned by the doctor, is a point well worth bearing in mind. Very often on the surface of it simply a sore throat will go into something deep. It serves as an indicator of something else. He did not mention all of the diseases connected with it.

I remember a case of pyorrhea, incidentally remarking his tonsils were diseased. The doctor was treating the man for pyorrhea and had been for quite a while and when the tonsils were removed the pyorrhea stopped and has not been bothering since.

DR. McHENRY.

I do not believe I have a thing to add to the paper, only I would like it if the doctor had read the paper before the general section, for so many of the general physicians have not waked up to the facts contained in the doctor's paper. That is the difficulty we special men have. So many people have so many erroneous ideas regarding the tonsils which have been given them by the general practitioner; but if they had the insight Dr. Leeds has it would be better. The suggestion made by Dr. Westfall as to relieving the pyorrhea would be a great help to the physician if it would work all the time.

DR. BARNES.

There is one point in the doctor's paper that I would like to emphasize and that is with reference to rheumatism in throat trouble. I believe that a great majority of rheumatic children are caused from diseased throats caused from the tonsils and the general practitioner should learn to examine carefully the throats of children who have rheumatism.

DR. DAVIS.

I have nothing to add to this paper. When we start to discuss the tonsils we get into the operations and it would take all morning.

DR. STOOKSBURY.

I heartily endorse the paper and am glad to know our general

physicians are finding out more of the condition of the throat as being the primary cause of a great many of our symptomatic diseases and when they study more of it it will be better for us to do the work which would be more referred to us for the work is beginning to be more specific. There are a great many points the doctor brought out that are thought over a great deal. Being a general practitioner part of my life I found when I went to special work that I knew comparatively little about the nose or throat being the primary cause of symptomatic trouble which we find today is one of the chief causes. The doctor spoke of the tonsils being the primary cause of rheumatism. I have seen more cases among children that the tonsils would become diseased following after rheumatism than you would see the tonsils affected first. I would not say that it is not a cause, but perhaps the rheumatic trouble is the primary cause and the affected tonsils follow. As to whether a primary cause of rheumatism is through the tonsils I do not know. Of course affected tonsils would have an effect more or less on children.

#### THE CHAIRMAN.

I have a case that has been of interest to me that works the other way from the doctor's case. In the night I was called, about one-thirty, and one doctor asked me to go see a patient of his; and I went to her home and found her complaining of intense earache that started in the right ear but was now in the left ear and a band extending down on either side of her throat and she could not get her breath. This pain was awful and the folks were all running around and indicating the house was all up and the patient was wore out as regards her nerves, and also had neuralgia pains in the chin and a slight cough; no temperature but a strong pulse of 185. Her head was turned to one side and her hands all drawn up in a spasm and I thought this was getting into cerebo-spinal meningitis. I made several tests and after monkeying around three-quarters of an hour I learned that she was due to menstruate in about forty-eight hours. I got her up and gave her a good hot tub bath and hypodermic injection and went home. She was better next morning, but in the afternoon the pain began again and I gave her some aspirin and told them to give her another hot bath, which they did and she got better and that evening about eight o'clock she began to flow and has not had any trouble since.

#### DR. LEEDS.

I appreciate the privilege of appearing before this section and the kindly discussion of my paper. I like to write and read a paper because I always learn something. In regard to the discussion on rheumatism; about the time that Parke Davis & Company were first beginning to experiment with this new serum for rheumatism I happened to have three or four cases on hand at the time and a man came through and the company kindly sent me some of it for experimental



work along that line. I always found in every case of rheumatism I have treated, if they were old enough to understand the questions, there is always at least a hazy history of a sore throat before the rheumatic condition started. I have been making some researches and at some later date I will be able to give some definite facts along this line.

### MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION--- THE PROPOSED CHANGE IN NAME.

GEORGE H. SIMMONS, M.D., LL.D., Chicago.

Explanatory Note:—This abstract of an address before the Conference of State Secretaries is republished from the American Medical Association Bulletin of November 15, 1912, on the request of the Judicial Council. The House of Delegates referred the report of the committee to formulate amendments to the Constitution and By-Laws to extend membership, presented at the 1912 session (Journal, June 15, 1912, p. 1899) to the Judicial Council with power to confer with constituent associations. The council, after consideration, endorses the proposed change and takes this means of bringing the subject to the constituent association as well as directing to it the attention of the members.

I have been asked to discuss the present conditions of membership in the American Medical Association and the proposed change, which has been under discussion recently. While this is not directly related to the object of this conference, the discussion of uniform regulation of state membership, it is so closely connected with it that I cannot refuse to take advantage of the opportunity of discussing the question before such a large representation of state secretaries.

To get a clear understanding of what the present term "members" of the American Medical Association means, it is necessary to go back a little in the history of the Association.

The American Medical Association always has been a delegated body; only "delegates" ever had a right to take part in its proceedings.

"Permanent members" was a term originally applied to those delegates who connected themselves permanently with the Association after they had served as delegates. "Permanent members," however, had no rights except those of attending the meeting and taking part in the scientific work. In 1883, The Journal was started and the following year, for the purpose of increasing the circulation of The Journal, there was created another class: "Members by Application." A member of any so-called affiliated society could become a "member by application" simply by making application for membership and paying the annual dues. The difference between "mem-

bers by application" and "permanent members" was that the latter had been delegates, whereas the former became members simply by making application. Neither "permanent members" nor "members by application" had vote or voice in business meetings.

MEMBERSHIP IN THE A. M. A. TODAY ON THE SAME BASIS AS THE FORMER  
"MEMBERS BY APPLICATION."

Briefly, we have the following situation:

1. The voting membership of the organization is the combined membership of all the 2,000 (more or less) component county societies amounting approximately to 70,000 members. These elect the delegates to the House of Delegates of the state associations; they in turn elect the delegates who form the House of Delegates of the American Medical Association. Before 1901 the delegates to the American Medical Association were elected, or appointed, by the "affiliated" societies, which included local, district and state societies. Since 1901, that is, since the reorganization, the delegates to the national body are elected not by local, district and state societies, but by the state societies alone.

2. The so-called "members of the American Medical Association" are the direct successors of the old "members by application." By their payment of dues and their subscriptions to The Journal, they were and are today the supporting or contributing group of the members of the organization.

3. The House of Delegates is composed of approximately 150 members, who are elected by the various state Houses of Delegates, which are in turn composed of delegates elected by the members of the component county societies. The House of Delegates of the American Medical Association, therefore, is created by, and represents the combined membership of all the county societies of all the states; it is not elected by, nor does it represent, the present "members of the American Medical Association" as such; it never has.

The result is that we have two classes which could be called members. First, the actual, logical memberships of 70,000, usually designated as "the membership of the organization." Second, the 36,822 contributing or supporting members, who are designated as "members," although these "members of the American Medical Association" have no more privileges than have all members of the organization, except the right to take part in section work. This present situation I have had shown on the accompanying chart (Chart I.) The membership of the American Medical Association, at present 36,822, is an inner circle of the membership of county societies, while the House of Delegates is a still smaller circle composed of those who have been elected to represent the members of the organization of the whole country.

Now the situation itself is perfectly logical and is in every way to be commended. The trouble is that we have not named our groups accurately. Those whom we now call "members of the American Medical Association" are really those members of the organization, who, in addition to supporting their county and state associations, also contribute to the support of the American Medical Association, while for the actual membership of 70,000 members we have no distinctive name.

The change that has been proposed is not a change in condition at all. It is simply a change in name. It is proposed to design-

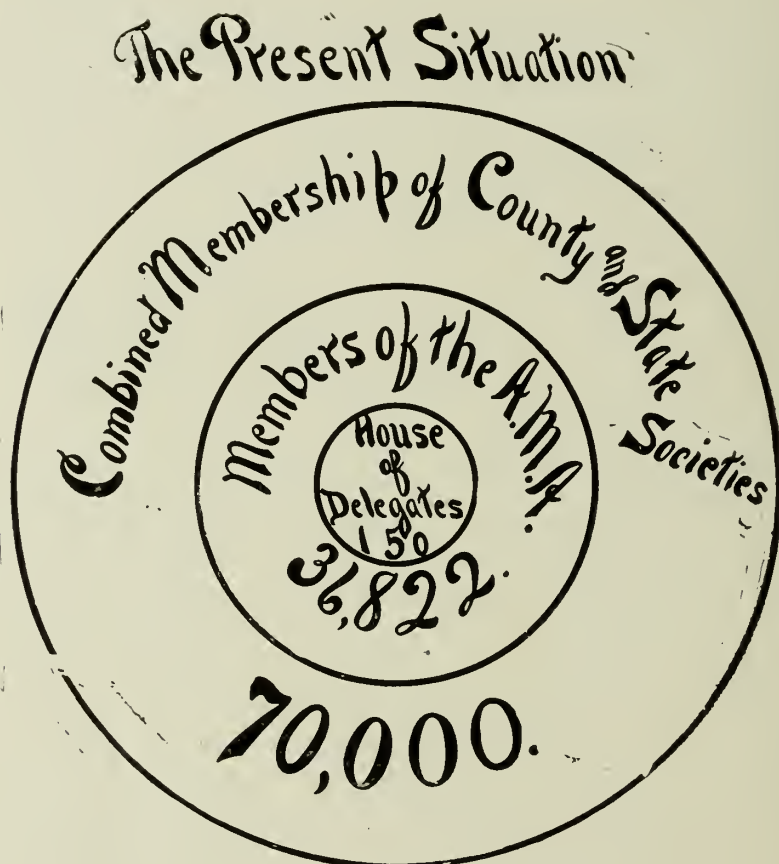


Chart 1

nate the 70,000 members included in the large outer circle (Chart 2) as "members of the American Medical Association," which they really are and always have been, while those included in the inner circle (that is, those members in good standing of their county and state societies, who also pay \$5 a year to support the work of the American Medical Association) are to be called "fellows of the American Medical Association" instead of "members." This will make no change in

the membership standing or relations of any man. If this suggestion is adopted all members in good standing in their state organizations will be designated as "members of the American Medical Association," while those members who contribute \$5 a year to support the work of the Association will be designated as "fellows of the American Medical Association." In other words, those who are now known as "members" of the American Medical Association will be known as "fellows" of the American Medical Association, while the term "mem-

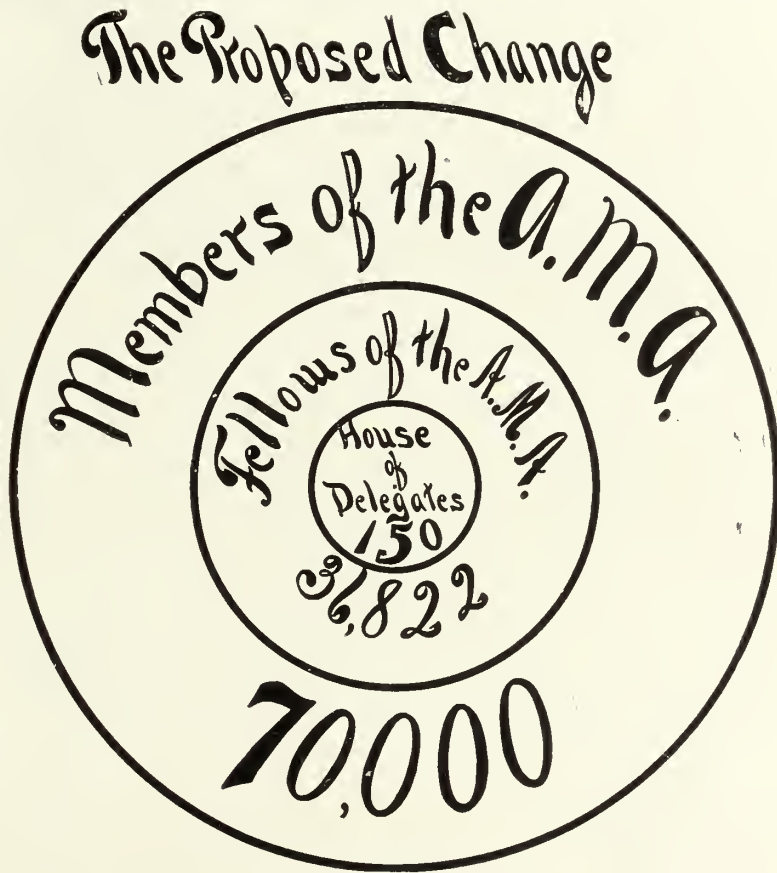


Chart 2

bers" will be applied to the entire, combined membership of the component county societies of the whole country.

This plan has several advantages. In the first place it will give us a name for the entire membership of the organization, which we have never had before. Before 1901 they were referred to as members of "affiliated" societies, and since then have been called, for lack of a distinctive name, "members of the organization." Another advantage will be that it will make clear that the voting power lies with the 70,000 members and not with the 32,822 "fellows." When



this plan was first proposed, some got the impression that the intention was to compel the 70,000 members of the county societies to become "supporting members" of the American Medical Association, as the term is now understood. This, of course, would be a ridiculous proposition. The proposed change contemplates leaving membership conditions exactly as they are; it contemplates changing the name, and not the relation.

One great advantage prior to the reorganization of the American Medical Association in 1901 was the fact that we had no name by which to designate the delegates. As soon as the name "House of Delegates" was adopted, then the function of the delegates became clear at once. The Association also has labored under the disadvantage, ever since its reorganization, that there has been no name by which to designate the actual voting membership, because the term "members" had been applied to the supporting body. The proposed change simply recognizes this fact, designating as "members" those who really are members, and designating the supporting members as "fellows."

I have already given some reasons for making the change, but there is another and more important; in fact, it is the paramount reason. Up to the present time, the members of the organization have not realized that they are, in reality, members of the American Medical Association. They regard the American Medical Association as something entirely apart from them, something in which they have no interest. These members of the organization are through their elected representatives responsible for what the American Medical Association is doing, or what it ought to do and is not doing but they do not realize this, hence they are not interested. They do not appreciate that the House of Delegates of the American Medical Association, which they elect, is the body that is doing the work through the officers, trustees, councils, etc., which they, through their representatives in the House of Delegates of the American Medical Association, select. While only a change in name, I think the subject is of the utmost importance. I hope that all of you will look into it carefully, so as to understand exactly what is intended, and then will explain it to your members at the first opportunity.

## EDITORIAL

### THE FRIEDMANN TREATMENT OF TUBERCULOSIS.

The silence, almost universal, of the medical press relative to Friedmann's treatment of tuberculosis is ominous and bodes no good reception to that system of treatment even should it prove to be a boon to the tubercular. It is unfortunate if there is any merit to this treatment that Dr. Friedmann should have apparently secreted his discovery and means of preparation of it to such an extent that he has brought down on his head the criticism of his colleagues and with it the grave doubt as to any possible good in the proposed cure.

It is pitiable to see this man daily heralded by this and that paper treating a handful of tubercular patients; hurrying by train to another point and giving a frenzied demonstration of his methods, but not of their results: when it must be known at a casual thought that until this treatment, if it is good, is placed in the hands of the profession it can do no good except to such a small number that they are not worth considering. It is also regrettable that the daily papers in their rush and sensationalism have misled unfortunate people and extended to them hopes that cannot be fulfilled in announcing this cure to be a success. They state with great exactness that "Dr. Friedmann's technique is perfect"; that he "held his audience spell-bound," that "to a large audience of prominent men of the profession, etc.," all of which means nothing, but is hurriedly read and misinterpreted by the sufferer.

Friedmann is in an unfortunate position; if his cure is a cure its establishment will be an uphill business; if it is a fraud, or what amounts to the same thing—a premature statement holding out hope to doomed people—there is no scorn or contempt great enough for his punishment.

The medical profession will, however, not totally condemn this alleged cure until they have given it a fair consideration, but it is nevertheless regrettable that he could not have taken the same means to have given his discovery a tryout and investigation that scientists usually take in such cases.

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### DR. SIMMONS ON REORGANIZATION.

Elsewhere will be found a recent address by Dr. George H. Simmons, editor of the Journal A. M. A. delivered to the meeting of State Secretaries at Chicago in October.

This address should have the careful consideration of every member of the House of Delegates and Presidents and Secretaries

of county societies; its adoption will eventually be a certainty and the sooner we take steps to reorganize along its recommendations the sooner we will be in the compact and flexible condition for action we should be in.

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### **WHAT'S THE MATTER WITH KANSAS? NO, HER GOVERNOR!**

The medical profession of Kansas unitedly opposed the nomination and election of Mr. Capper for Governor, the Republican nominee, and was a factor in his defeat at the general elections following his nomination, but it seems that they jumped from the frying pan into the fire, from the sublime to the ridiculous; they elected a Governor who it is said recently approved a bill making a law creating a Board of Chiropractors; the Board to consist of three Chiropractors, one preacher and one school teacher.

Just what they expect to get out of this conglomerate mass is uncertain, but the medical profession of Kansas need not worry so much over the situation; it occurs to us that every time you give publicity to one of these alleged sciences you give it a death blow, the people of course have to pay the cost of this inefficiency turned loose among them, not the doctors.

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### **RECENT MORTALITY IN EPIDEMIC MENINGITIS.**

The medical profession has recently observed with no small degree of alarm the virulent type of epidemic meningitis as compared with a year ago.

In Muskogee and adjoining counties, very few cases have been saved. Nearly all have died without reference to time of diagnosis, stage of disease, age or occupation of the patient.

In the epidemic of a year ago the death rate was fifty per cent counting all cases treated with serum. This included those who were moribund at the time of treatment and many others often in a most critical condition.

It is impossible to state now just why we are having these apparent failures, but the cause may show up later. It is possible that the disease may be more virulent or that the serum used may have become attenuated in some manner.

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### **OUR COUNCILLOR DISTRICTS.**

Against the present plan of distribution of Councillor Districts, considerable criticism may be brought. Some of the Districts have scarcely any members, while others are very populous, which results in giving the Councillor of the populous district more work than he should do or can rightly be expected to attend to. Some plan of rearrangement should be brought forward and proposed at the Enid

meeting by which these districts can be made more uniform in medical population and more easy of access than they now are.

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### PERSONAL AND GENERAL NEWS.

Dr. W. R. Bevan, Secretary of the Oklahoma County Medical Society, has been suffering from an attack of typhoid fever.

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Dr. C. T. Rogers, who went to Europe early in January accompanied by a patient suffering from tuberculosis, and for the purpose of investigating the so-called Friedmann cure, has returned. Dr. Rogers is not convinced that the treatment has any merits over several similar treatments with slight variation, says that so far as he is personally concerned will use another preparation than the Friedmann and doubts very much that any good will come out of Friedmann's proposition.

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Greer County Medical Society held one of the best meetings ever held in the state on March 20th at the State Reformatory hospital where a clinic was had through the courtesy of Dr. Geo. W. Wiley, prison surgeon. Those holding the clinic were Drs. M. M. DeArman, G. F. Border, W. W. Beach, J. E. Campbell, G. Pinnell and T. J. Nunnery. The cases operated were, Castration under Local Anaesthesia, Gall Bladder Operation, Appendectomy, Strabismus Operation, and Circumcision under Normal Salt Solution Anaesthesia.

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President Shuler has appointed a Necrology Committee to serve for one, two and three years. The Committee is Dr. Geo. A. Boyle, Enid; A. D. Young, Oklahoma City; J. B. Smith, Durant.

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Dr. J. N. Scott, of Kansas City, who is well known to many physicians of Oklahoma, recently underwent operation for removal of one arm as a result of continuous X ray burns over a period of years past when the danger of the use of the X-ray was not understood. Dr. Scott deserves the greatest sympathy from his friends in the profession at this unfortunate conclusion of many years of activity in medicine.

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### FROM OKLAHOMA CITY.

Dr. U. L. Russell and wife have departed for a trip to the Panama Canal and Central America via Havana.

Dr. Arthur E. Gue died from an attack of pneumonia last week.

The wife of Dr. C. E. Barker also died of pneumonia last week.



### **THE MINNEAPOLIS MEETING OFFICIAL ROAD SELECTED.**

All Oklahoma Doctors are interested in the next meeting of the American Medical Association, which will take place in Minneapolis, June 17th to 20th, 1913.

Because of the nearness of the meeting place, and the low rates that will be made, no doubt a large number of our doctors will attend.

After considering all conditions, it has been decided that it will be desirable for the Oklahoma doctors to concentrate at Kansas City, and from that point use the special train which will be operated via the Burlington Route.

This train will leave Kansas City late in the afternoon and reach Minneapolis the next morning, the exact date and time to be decided upon later, and full details will be sent you.

The train will also carry the delegation from the state of Kansas and from Jackson County, Mo., (Kansas City.)

We have therefore declared the Burlington to be the official route from the state of Oklahoma.

(Signed.) JAS. L. SHULER, President.

(Signed.) C. A. THOMPSON, Secretary.

---

### **CONTRACT LET FOR LABORATORY.**

The Trustees of National University of Arts & Sciences of St. Louis, announce that a contract was signed on February 21, 1913, for the building of \$5,000 worth of apparatus for use in the physiology laboratory of the medical department (American Medical College) of the University. Dr. Bernard Blass, formerly of New York City, has been elected Professor and Head of the Department of Physiology, and will assume this position with the opening of the session of 1913-1914.

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### **EXPLAINING THE MORTALITY RATE.**

The Manitou Springs Hot Iron club of Manitou, Colo., a town with a population of about two thousand, takes great pains to explain that their death rate for the past five years is very low compared to other cities and resorts, when the non-residents, who die there are taken into consideration.

They show 130 deaths, 85 non-residents among the number. They point with pride that none of the residents died with tuberculosis; that 49 non-residents died from that disease. Taking the report altogether, it is very flattering to Manitou Springs and at the same time shows that the citizenship of that city, place value on mortality records as an advertisement of their resort.

## RATES FOR MINNEAPOLIS MEETING.

Muskogee Okla., March 11, 1913.

Dr. Claude A. Thompson,

State Secretary American Medical Association.

Muskogee, Okla.

Dear Sir:—

Confirming our conversation even date relative to routing of the members of the American Medical Association from Oklahoma to the Convention in Minneapolis, June 17th, to 20th, I am pleased to advise that the Missouri Pacific operates through Standard Pullman and chair car service from Kansas City to Minneapolis via Omaha and the North Western, leaving Kansas City at 1:55 p. m., arriving in Minneapolis the following day at 8:25 a. m. All meals are served on dining cars.

The Missouri Pacific also operates through Standard Pullman Sleeper from Kansas City to Sioux City via the above route on the 10:35 p. m. train, making connection at Sioux City with through Parlor Car for Minneapolis, arriving in Minneapolis at 8:10 p. m.

The Pullman rate from Kansas City to Minneapolis is \$3.00 and to Sioux City is \$2.00.

The rate for this occasion will no doubt be the Summer Tourist rate that is in effect from June 1st to September 30th, final return limit of October 31st.

For your information am quoting the rates in effect from some of the most important Oklahoma cities for the season of 1912, and will be about the rate to Minneapolis for 1913. They are as follows: Muskogee, \$25.30; McAlester 27.80; Durant, \$30.80; Shawnee, \$28.90; Sapulpa, \$25.60; Oklahoma City, \$28.90; Lawton, \$32.30; Enid \$27.20; Ardmore, \$31.80; Vinita, \$22.70; Claremore, \$24.00; Tulsa, \$25.00; Wagoner, \$24.70; Bartlesville, \$23.00, and approximately low rates from other cities.

Will appreciate your kindness for placing the Missouri Pacific service before your members, and any further information will be gladly given by

Yours very truly,

R. S. NORRIS Traveling Passenger Agent,

Missouri Pacific, Kansas City.

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## NEW BOOKS

### SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

Volume II. Number I. (February 1913.)

THE SURGICAL CLINICS OF JOHN B. MURPHY, M. D., at Mercy Hospital, Chicago. Volume II, Number I. (February 1913). Octavo of 179 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00; cloth \$12.00.

This is the first of the 1913 issues of this now well known bi-monthly publication from the clinic of Dr. Murphy. This issue starts off with a treat to the students of surgical conditions in the way of an address or clinic by Mr. Arbuthnott Lane of London, who, as the pioneer in bone surgery, has done so much to advance it to its present state of high efficiency. Mr. Lane, by this masterly appearance (November 23, 1913) does much to show the secret of his own great

success in the work and the points on which his success were built up are clearly enunciated by Dr. Murphy.

There is also an address on the Medicolegal Relations of Physician and Patient by Dr. W. C. Woodward, Health Officer of the District of Columbia, Washington, D. C. This address is worthy of consideration from the physician as coming from one peculiarly fitted by education and fitness to deal with the subject and article simplifies some of the complexities of our legal relations to our patients. There is an article on fecal fistula following appendicitis and operation therefor; and the book contains the usual wide variation of other surgical conditions.

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**GOLDEN RULES OF GYNECOLOGY**, by George B. Norberg, M. D., Professor of Diseases of Women and Clinical Gynecology, University Medical College, Kansas City, Mo., Gynecologist to Kansas City General Hospital, Fellow and Ex-President Kansas City Academy of Medicine. 250 pages, 8 vo. Price \$2.25. C. V. Mosby Co., St. Louis, U. S. A.

There is a need for just such a book as this one. It does not displace the textbook or the monograph on gynecology, but is rather a guide to what one should know and observe on this fascinating branch of medicine.

In 250 pages one finds the really "Golden Rules,"—the observance and application of which will enable the practitioner of medicine to get results. Convenient in size and convincingly written, this volume can be perused over and over again with the feeling that each time it is read one becomes better able to cope with diseases of women.

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**CHLORIDE OF LIME IN SANITATION**, by Albert H. Hooker, Technical Director, Hooker Electrochemical Company, Niagara Falls, N. Y. Cloth, 231 pages, published by John Wiley and Sons, New York and London, 1913.

This book is an evidence of the good that may be accomplished by cooperation on the part of the medical man and the student scientists in other branches, especially industrial chemists and experts employed for the purpose of solving problems in manufacturing processes.

Mr. Albert H. Hooker, representing his company desired, on the suggestion of Dr. L. H. Backlund, chemical counsel of the company, all available data with reference to chloride of lime in sanitation and such a large amount of valuable material was collected that it was deemed advisable to publish the results which are here given for the readers' use. The use of chloride of lime as a disinfectant, in sewage and water purification, in the various epidemic and infec-

tious diseases, in surgery and in its commercial uses generally, is noted. The book has a very practical use to the sanitarian and health officer.

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**TUBERCULIN IN DIAGNOSIS AND TREATMENT**, by Francis Marion Pottenger, A. M., M. D., LL. D., Medical Director of the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California. 243 pages, royal octavo, 35 illustrations, including one colored plate. Price \$3.00.

This volume is the most complete and up-to-date work on tuberculin that has yet appeared. Beginning with the importance of tuberculin tests in the early diagnosis of tuberculosis, the author discusses in detail "Subcutaneous Tuberculin Test," "Cutaneous Tuberculin Test," "Tuberculin in Treatment of Tuberculosis," "Hypersensitiveness," "Certain Conditions Which Have Made the Adoption of Tuberculin as a Diagnostic and Therapeutic Measure Difficult," "Evidences of the Therapeutic Value of Tuberculin," "Fever in the Relationship to Tuberculosis," "Temperature Curve in Tuberculosis," "Technic of Administering Tuberculin," and an Appendix, in which is given for the first time in English Koch's announcement of the discovery of tuberculin.

Dr. Pottenger is qualified to speak on this subject. Two thousand cases of tuberculosis coming under his personal care in sanatorium practice furnishes the basis for this work. Careful, painstaking effort, is everywhere noticeable in this production. The chapters on Importance of the Tuberculin Test in the Early Diagnosis of Tuberculosis is especially to be commended, as well as that on Technique of Administering Tuberculin.

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**MEN, MANNERS AND MEDICINE**, by Medicus Peregrinus. The Essays and Sketches which make up this collection originally appeared from time to time in the columns of the Boston Medical and Surgical Journal. They represent the observations of a doctor, from his professional point of view, on men and books and other phenomena, especially in relation to medicine. The reader may be not only entertained but instructed, as he realizes how abundantly the doctor's life affords special opportunities for contact with larger interests outside the day's work.

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TABLE OF CONTENTS.

Men, Manners and Medicine; three American men of letters; some aspects of the doctor; some modern aspects of heredity and evolution; homeric physicians; the sacrifice to asklepios; arthurian physicians; some aspects of modern life; four English men of letters; the doctor's year.

Octavo, uncut edges, in heavy paper cover, price, postpaid, \$1. W. M. Leonard Publisher, 101 Tremont Street, Boston, Mass.



### ANURIA.

An interesting case of complete anuria lasting eight days in a young man with previous good health, except for an occasional polyuria at varying intervals is reported by F. J. Sheahan, Delhi, Ont., (Journal A. M. A., March 15.) The condition seemed to give but little discomfort at first, the patient complained only of the suppression of urine and headache, but general anasarca developed after several days and vomiting occurred, twitching of the muscles, and headache became pronounced and continuous. The cystoscopic examination showed normal condition of the bladder and a catheter was passed easily into the pelvis of both kidneys showing no obstruction. It was evidently a case of complete cessation of renal function. After the general anasarca developed, diuretic treatment having failed with salines, and pilocarpin having previously failed, he was given a mixture of apocynum 5 grains, iris versicolor, one-half grain, hyoseyamus four grains, every three hours. Exactly eight days from the beginning of the attack the kidneys began to functionate very freely and improvement was progressive thereafter. The cause of the trouble is very obscure and Sheahan doubts hysteria, which is not favored by the patient and the history and character of the case. He asks, is it a condition developing as a complication of an occasional polyuria from which the patient had previously suffered or is it a forerunner of diabetes insipidus and produced by a toxemia existing in the early manifestations of the disease. Sheahan says, "I think it was clearly demonstrated that the kidneys resumed their functions as the result of the powerful renal stimulant. The problem is, what was the cause of this condition? The question is an open one."

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WANTED, SURGEON—Will pay \$3,000 for an assistant. Must be able to diagnose and operate on twelve to fifteen operations a week, mostly Laparotomies and look after them. Management of the hospital up to him also, when I am out of the city. No student need apply. Must be a man with actual experience in abdominal work.

FOWLER BORDER, M. D.,  
Mangum, Oklahoma.

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Next Meeting—Oklahoma City, April 8, 9, 10, 1913.

Address all communications to the Secretary.

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# THE JOURNAL

of the



## Oklahoma State Medical Association.

VOL. V

MUSKOGEE, OKLAHOMA, MAY, 1913

No. 12

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

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THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

### Acute Yellow Atrophy of the Liver.

BY W. E. STEWART, M. D., Norman, Oklahoma

As defined by Osler, it is an acute, widespread autolytic necrosis of the liver cells, of unknown origin, characterized by jaundice toxemia and a reduction in the size of the liver.

**CAUSE:** It occurs both as a primary and a secondary to other hepatic disorders. *Secondary* such as the acute infectious diseases; as typhoid, septicemia, diphtheria and puerperal disease.

**PRIMARY:** Acute yellow atrophy is a very rare but extremely severe disease. In fact, so severe that the patient seldom recovers. It is most common in young adult life, between the fifteenth and thirty-fifth year. Females are much more liable to the disease than males. It is said that pregnancy increases the predisposition to it. We cannot as a rule find any exciting cause. Some writers state that the onset has been preceded by some violent emotional excitement, or excess in alcohol. It is an interesting fact that the disease becomes rather more frequent than usual, as an epidemic; for instance, several members of one family may be attacked.

*Read before the Cleveland County Medical Society, November 14, 1912.*



**PATHOLOGY:** The post mortem shows that the chief change is in the liver. The organ is much atrophied, sometimes being one-half or one-third its normal size. This makes its capsule often seem contracted and wrinkled. Usually the organ is soft and flabby, and in places feels as if the finger could be pressed into it. The surface has a greenish yellow color. On section the color may be yellowish brown, red or mottled. And the lobules are hard to outline, as the lines are indistinct. The red places look as though they had collapsed and seem tougher than the yellow. They correspond to the more advanced stage of the disease, while the yellow spots have undergone less change. Such lobules as can still be made out—that is, in the earlier stage—seem abnormally small and have a gray periphery.

On microscopical examination we find that the essential change is an intense and uniform fatty degeneration of the hepatic cells, affecting the entire parenchyma. Only a very few cells retain their normal condition. The others are filled with large fat globules, pigment grains and crystals of Leucin and Tyrosin. In as much as the lymphatics readily absorb and remove the fatty and albuminal granules, there is finally little left except blood vessels and connective tissue.

On examination of the other organs (the heart and kidneys) rarely the muscles show fatty degeneration. Acute splenic tumor is invariably present. The skin and most of the viscera are tinged with jaundice. The blood itself is dark with few clots. The peritoneum and other serous cavities sometimes contain a considerable amount of serum. The blood shows the abnormal fluidity found in cases of pyrexia, and in the infectious diseases it has little tendency to coagulate, being diffuent, blackish and tarry. It is deficient in red blood corpuscles and is loaded with Leucin, Tyrosin and Xanthin, due to incomplete oxidation of the proteids. According to some writers, it is said to contain less urea. The hemoglobin also carries less oxygen.

**SYMPTOMS:** In the initial stage the patient may have only a gastro-duodenal catarrh, and a jaundice which appears to be only simple in nature. This may be termed the initial stage, lasting from only a few days to a few weeks.

*Then the second stage begins.*

*The chief characteristics of this are the grave nervous symptoms.* (1) There is a violent headache, with sleeplessness and marked restlessness. (2) Vomiting is a constant symptom and blood may be brought up. The mental confusion usually advances very rapidly to a noisy and violent delirium. The excitement at times becomes maniacal, the patient is very restless and can hardly be kept in bed. Often there are convulsive twitchings of individual muscles, and there may be typical epileptiform attacks, but this is not common. The body temperature is variable. The majority of cases run an

afebrile course. In some instances, however, there is a marked pyrexia, the tongue coated, dry and the patient is in a typhoid state. Examination of urine shows that it contains bile pigment and many investigations have also found bile acids in it. Urea is markedly diminished. Nitrogen in the form of ammonia is increased. Leucin and Tyrosin present at times; twenty-three cases collected by Hunter, in nine neither were found. The present view is that the Leucin and Tyrosin are derived from the liver cells themselves as a result of their extensive destruction. In the majority of cases no bile enters the intestine. The stools are clay colored. There is generally constipation. The pulse is rapid, often reaching 100 to 160 beats per minute, and is also small and compressible. It is this acceleration of the pulse contrasting with its usual slowness during the first stage, which along with the vomiting announces the onset of dangerous symptoms. The pulmonary signs are seldom marked, although there may be bronchitis or a pneumonia due to inhalation of foreign substances. *During the coma* which preceded death respiration is usually hurried and often deep and noisy. The temperature is at first slightly elevated; toward the fatal termination there may be subnormal temperature or the temperature rises just before death. In case the disease attacks a pregnant woman, abortion or premature delivery is almost sure to occur. The entire duration of the disease depends mainly upon the length of the first stage. This may be wholly absent or may be brief, or may occupy several weeks. The duration of the second stage, reckoning from the occurrence of the cerebral symptoms, is generally only a few days. The termination is almost invariably fatal. Only a few cases of recovery are on record.

The symptoms of the first stages are indistinguishable from simple catarrhal jaundice. With the development of the great symptoms of the second stage, the general course—the deep jaundice, the cerebral disturbance, the cutaneous ecchymosis, the character of the urine, the blood examination—all point more toward yellow atrophy.

*Then the other common diseases of the liver are to be ruled out:*

DISEASES	SIZES	CHAR.	PALPATION	PAIN	JAUND.	ASCITES	REMARKS
Acute Yellow Atrophy	Decreas'd	Firm	Smooth	Absent	Present	Absent	Acute—Rapidly fatal
Abscess	Enlarged	Soft	Circumscrib'd Swelling	Constant	Absent	Absent	Chills-fever
Acute Hepatitis	Enlarged	Firm	Smooth	On pressure	Present	Absent	Fever
Cirrhosis—1st Stage	Enlarged	Firm	Smooth	On pressure	Occasion'l	Absent	Alcoholic
Cirrhosis—2nd Stage	Reduced	Hard	Nodular	Constant	Present	Present	History
Carcinoma	Enlarged	Hard	Nodular	Constant	Usual	Usual	Usually secondary
Syphilis	Enlarged	Firm	Lobulated	Constant	Present	Present	History
Enchinococcus	Enlarged	Soft	Fluctuating Tumors	Occasion'l	Absent	Absent	Exploratory puncture diagnostic
Amyloid Degeneration	Enlarged	Hard	Regular	Present	Absent	Absent	Usually secondary

It is of practical importance to distinguish this disease from acute phosphorous poisoning. The differential diagnosis is to be made from history of the case and the following factors:

ACUTE YELLOW ATROPHY:

1. Prodromes are usually present, but may be absent.
2. Jaundice develops early; sometimes becomes marked.
3. Liver becomes atrophic from the start. Pain in Hepatic region not the rule.
4. Maniacal delirium very frequent.
5. Not infrequently fever; sometimes high fever.
6. Leucin and Tyrosin often are found in the urine.
7. Spleen often enlarged.

PHOSPHOROUS POISONING:

1. Sudden onset.
2. Jaundice does not appear until later and may be slight to the end.
3. Liver much enlarged until death and very painful.
4. Seldom marked delirium.
5. Not infrequently fever is absent throughout.
6. Exception to find Leucin and Tyrosin in urine.
7. Spleen not usually enlarged.

TREATMENT: From what has been said, it may be gathered that the treatment is hopeless. Elimination and stimulations and nerve sedatives. Calomel is a drug particularly employed in eliminating. The nervous symptoms are combatted by an ice cap. Baths and narcotics, the vomiting by opium and bits of ice, and the cardiac weakness by stimulants.



## **Local Anesthesia in General Surgery.**

By LEIGH WATSON, M. D., Oklahoma City, Oklahoma.

The progress that has been made in the methods of local anesthesia is not generally appreciated by the average physician. Undoubtedly ether and chloroform are used in many cases where local anesthesia would be equally satisfactory for the completion of the operation, not to mention the comfort and safety the local method affords the patient. The dangerous and imperfect methods of using local anesthesia in the years gone by are still confused with the simple, safe and efficient technic that now prevails in the clinics where local anesthesia is used as the anesthetic of choice rather than the anesthetic of necessity.

Those who have not familiarized themselves with the newer methods of local anesthesia in major surgery will occasionally perform minor or superficial operations such as opening an abscess, but will smile with incredulity if in a case requiring a herniotomy or appendectomy some one suggests the use of local anesthesia.

Matas says there is still a lingering tendency on the part of many surgeons, and especially the more conservatively inclined of the past generation to regard those who practice local anesthesia in major surgery in the light of experimentalists or enthusiasts, and to class them, as a whole, among the impractical class of surgeons. While as a matter of fact, the value of efficiency of local anesthetics are not restricted to purely minor operations, but they are of still greater service in dealing with many of the gravest and most critical emergencies of surgery, in which the role of anesthetic is of paramount importance.

Local anesthesia can be employed in any part of the body where the nerve supply can be controlled. With a proper selection of cases the majority of the operations of surgery can be performed under local anesthesia. More time is required than when operating under general narcosis. There are so many advantages, however, that the question of time will seldom have to be considered, except in large clinics. Local anesthesia adds greatly to the comfort and safety of the young and robust, and when the patient is handicapped by old age, shock, hemorrhage, or pulmonic, nephritic, or cardiac lesions, the local method is especially indicated. There is an absence of the fear many patients have for a general anesthetic and its after effects. While children and nervous patients are not the most favorable subjects, this factor alone is not sufficient to exclude local anesthesia. It usually requires considerable time and patience to win their confidence and much care to maintain it. When they are convinced that the method is absolutely painless and that there is nothing to fear, they usually prove to be model patients.



I have used local anesthesia for the operation of inguinal hernia in a boy of eleven, for appendicectomy in a girl of nine, a boy of fourteen and one of fifteen, and also for excision of the deep cervical glands in a girl of eight.

The nervous, frightened patient is the one that suffers most from shock under general narcosis, and for that reason alone an effort should always be made to employ local anesthesia. I have never known a patient who has undergone an operation under local anesthesia that regretted the selection of the method, nor one that would consent to general anesthesia for a second operation. This is well illustrated in patients with double hernia. They usually desire both operations at one sitting and invariably refuse to even consider general narcosis for the second operation. It is not at all unusual for these patients to fall asleep during the latter part of the operation. As there is no necessity for hurry, fewer assistants are required than when operation under general anesthesia. Besides the absence of nausea, vomiting and shock, the post-operative pain is less than that following general anesthesia without the nerve block.

Without the absolute confidence of the patient, work under local anesthesia will tax the patience of the most skillful surgeon, therefore, it is important to proceed very slowly during the early stages of an operation under local anesthesia, until the more important nerve-bearing tissues have been thoroughly anesthetized. With a nervous patient ethyl chloride spray or a drop of carbolic acid may be used to deaden the pain of the first insertion of the needle. A fine, sharp needle introduced at a right angle to the skin surface is practically painless.

The successful use of local anesthesia depends on patience, gentleness in handling tissues, an intimate knowledge of sensory nerve distribution, and special training in the method. The technic of the injection is always delicate; it varies with each region, each operation, and in each patient. The method must be learned with a knowledge of its application and adaptation to each individual case. Upon the strength of the anesthetic solution depends the rapidity, intensity and duration of anesthesia. Because of the slow appearance of complete anesthesia with the weak solutions, surgeons that begin operating as soon as the injection is finished will often fail with local anesthesia.

The sensation of pain is confined to the skin, nerve trunks, parietal peritoneum, and synovial membranes of joints. There is no sensation of pain in bone substance, bone marrow, cartilage, tendon, articular surface of bone covered with cartilage, lungs, liver, heart, bladder serosa, kidney, pelvis, and ureter. Lilienthal was one of the first to note the absence of sensation in the intestine. Lennander has demonstrated that all internal organs obtaining their nerve supply from the sympathetic and vagus, below the branching

of the recurrent nerve, have no sensation. For this reason the abdominal and pelvic viscera are insensitive to heat, cold, pain and pressure both in health and disease. A slight twinge of pain is felt when blood vessels are cut. Traction on the ligaments of the thoracic, abdominal or pelvic viscera will cause pain; traction on the mesentery, besides producing pain, will cause epigastric discomfort and nausea. To Lennander more than to any other surgeon is due the credit for establishing a practical method of local anesthesia adapted to abdominal operations. According to Lennander, pains do not originate in the abdominal organs themselves. Irritation of an abdominal organ first gives rise to pain when it has extended to sensitive tissues outside the organ. Pain then exists through an irritation of the parietal peritoneum. This may be mechanical, as in volvulus; chemical, as in absorption from an ulcer; or infectious, as by means of a lymphangitis in appendicitis, or the direct expulsion of contents from gall bladder, stomach or intestine. Viscera involved in disease are quite as insensitive as sound ones, while the irritability of the parietal peritoneum is much increased by even a slight inflammation. This explains the difficulty that one encounters when attempting to block off the parietal peritoneum in the presence of an acute inflammation of the appendix.

Wilms believes the pain of intestinal colic is entirely due to the stretching of the mesenteric attachments. Lennander stimulated a loop of the intestine until it became hard and blanched and still there was no pain unless it tugged on the parietal peritoneum. Mitchell believes that this explains the fact that we often find dense adhesions between the coils of the intestines without producing any discomfort, and yet, when a movable piece of bowel is adherent to the fixed abdominal wall there is always pain. I have introduced a finger into the abdomen when operating under local anesthesia and made a firm pressure on the parietal peritoneum without causing pain. The same finger rubbing the sensitive peritoneum will cause intense discomfort and pain.

This is well illustrated in the use of abdominal pads when operating under local anesthesia. The patient will complain when it is introduced, especially if it is dry, and again when it is removed. As long as the pad remains quietly in place he will be unaware of its presence. This difficulty can be practically eliminated by the new technic of local anesthesia whereby the parietal peritoneum is effectively blocked for a distance of two or three inches beyond the incision. The mesenteries are also blocked as near their posterior attachment as possible so as to largely overcome the discomfort that follows traction and manipulation of these sensitive structures.

An abdominal drainage tube that lies in contact with the parietal peritoneum is always more painful to remove than one that only comes in contact with the viscera. The sensibility of the parietal peritoneum becomes less acute after prolonged exposure to the air.

Mitchell has reproduced all the symptoms of an acute attack of gall stone colic by injecting hydrogen peroxide into a gall bladder fistula and placing his finger over the opening. The pain of ureteral colic may be produced by distention of the ureter. The muscle spasm of acute attacks of appendicitis is due to irritation and inflammation of the anterior and lateral parietal peritoneum.

All forms of hernia can be operated on under local anesthesia, while the radical cure of inguinal hernia is the most successful operation in the entire field of local analgesia. In inguinal hernia a general anesthetic is never indicated. In strangulation the lowered vitality and shock make local anesthesia a necessity to eliminate the additional handicap of general narcosis. The first herniotomy by the neuroregional method was performed by Cushing.

Interval cases of appendicitis with a history of mild attacks in a patient with thin abdominal wall, selected cases of acute appendicitis, and cases in which a general anesthetic is contraindicated should be operated on under local anesthesia. Bodine believes the best method for all acute cases is local plus a few whiffs of general anesthesia for freeing and treating the appendix.

Operations on the skull can usually be completed under local anesthesia, including trephining, mastoidectomy, exploratory craniectomy, and removal of depressed fractures. Here the sensation of pain is confined to the skin and periosteum. The bone, dura and brain substance are insensitive.

Operations on the extremities are satisfactorily performed under local anesthesia. In dislocations, fractures and amputations of the fingers and toes, simple infiltration around the base of the digit is all that is required for complete anesthesia. For operations above the wrist and ankle, the regional nerve block of Matas is most satisfactory.

Local anesthesia has been used in a variety of abdominal operations with good results, including cholecystotomy, suprapubic cystotomy, drainage in peritonitis, exploratory for typhoid perforation and intestinal obstruction. Other operations that have been occasionally performed under local anesthesia are gastrotomy, resection of pylorus and intestine, colostomy, gastro-enterostomy, ventrosuspension and fixation of the uterus, salpingectomy, oophorectomy, shortening the round ligaments and removal of ovarian cysts.

Cervical and inguinal glands and tumors can be removed under simple infiltration anesthesia.

The operation of perineorrhaphy can be performed without difficulty under infiltration anesthesia.

Thyroidectomy should always be done under local anesthesia, according to Wyeth and Kocher. Mitchell suggests blocking the cervical nerves at the side of the neck behind the sternomastoid to eliminate the dragging pain caused by the delivery of the gland. Dunhill states that operations on the thyroid are without danger if performed under local anesthesia.



## **Preventive Medicine or Conservation of Human Life.**

BY H. L. WRIGHT, PH. G., M. D., Hugo, Oklahoma.

My friends and fellow practitioners, allow me to assure you it is with no thought of being able to enlighten you especially on this subject, that I have written this paper, but merely to call your attention to some facts along this line. It is a well known fact that thousands of useful lives are taken away annually by preventable diseases. Many of us have felt the distress and anxiety that come to us when a loved one is seriously ill and life and death are in the balance. We would give all we possess and do all in our power to restore him to health, but it is often too late.

How much better it is to avoid this enemy than to struggle with it after it has laid hold on our bodies.

According to the United States census report one million three hundred thousand people die annually in the United States, three hundred and twenty-five thousand, or about one-fourth of these, die of preventable diseases, and the estimated cost is from four to five million dollars.

Life insurance companies have come to realize the great necessity of fighting this man destroyer. The Metropolitan recently made application to the State Insurance Department for permission to purchase some three thousand acres of land on which to build a sanitarium for treatment of policy holders having tuberculosis.

This plan is in line with the recent movement in life insurance companies promoting increased longevity, and one company is willing to spend a hundred thousand dollars annually toward preventing tuberculosis, hence, if one insurance company can afford to do this what can a State afford to do for her citizens toward saving them from such an awful disease?

One Metropolitan policy holder dies every thirty-two minutes from tuberculosis. The Prudential company pays out annually over eight hundred thousand dollars on death claims as a result of tuberculosis, which is known to be largely preventable.

Much may be done in schools, but when this is all that can be desired we must realize that many children only enjoy six hours in twenty-four. If it is good for the schools it is equally good for the homes and the city.

City, town and municipal authorities need more knowledge of this work. Cities build costly sewer systems, yet those cities are found to be full of malorderous and disease breeding cess pools, often within one and two blocks of schools. Dead dogs, cats and chickens are consigned to the slop barrels and alleys and left for flies and rot to dispose of.



Hence, it becomes necessary that those who know the importance of sanitation and hygiene should do their utmost to disseminate this knowledge and impress others with the benefits that will result. We may never attain perfection in sanitation, but we should strive toward that end.

We have departments of agriculture that freely distribute printed matter, telling you how to raise corn and sugar beets, or what is best to feed your hogs, horses and cattle and how to prevent diseases among them, especially hogs.

The Federal government has gone to great length and expense to discover means of preventing cholera among swine, and in many instances will furnish the remedy as is done in our own state, but our children, unlike hogs, have no value in dollars and cents—so there is no provision made for their happiness, protection or welfare, hence, it is better it seems to be a hog and worth saving.

The following quotation from Monthly Press Bulletin, Oklahoma State Board of Agriculture:

"The farmers who visited the Livestock train took marked interest in the lectures and demonstrations on 'Vaccinating Hogs Against Cholera.' Every farmer who visited the train and paid close attention to the lecturer making the demonstration will be prepared to vaccinate his own hogs in case an epidemic should break out in his community. At Clinton, where hog cholera had just broken out, the State Veterinarians gave lengthy lectures on the subject and vaccinated scores of hogs that were brought to the train. If hog cholera breaks out in your community, wire to A. & M. College for vaccine, and in case farmers in your vicinity do not understand how to inject the vaccine, wire the college and a man will be sent to do the work."

The free use of mails is allowed for the distribution of political matter, but one of our Presidents refused to endorse a bill providing for the free use of the mails for literature on health. Each and every school should have a school physician and when a child is found in school presenting symptoms of any disease, especially any of the many contagious diseases, the school physician should be sent for, the child examined, and if found to be necessary, the child should be sent home and the parents notified of what is found or suspected so they may summon the family physician at once, and an early diagnosis may result in saving the child's life. The child's removal from school may prevent dozens of others from contracting the same disease. And in our own State last year we lost from: Measles 159, diphtheria 187, smallpox 97, scarlet fever 77, whooping cough 61, and pneumonia 1,384.

The reward of honest satisfaction is greater for the knowledge that dangers have been forestalled and the normal progress of the child secured. So let us bear in mind that the most effective power for human good lies in prevention—and that to conserve a healthy body is a greater achievement than to cure a malady which has resulted from conditions which our timely efforts might have averted.

The will, the energies, the teachings of the pedagog should all be turned with those of the medical practitioner toward the prevention of diseases. By the observance and enforcement of these very simple, yet natural laws which make for the clean, healthy, normal body. This is an age of prevention.

Intelligent men today work to prevent spilling the milk instead of crying over it when it is spilled.

Why should we not be up and doing as medical men of this great state of Oklahoma, to prevent disease instead of waiting for it to come and then trying to cure it?

Prevention of disease or prophylaxis is indeed the most important work of the physician, the health officer, the city, state and national official and the public spirited citizen of today.

You can save many lives by curing disease, but you can save many thousand by intelligently fighting against the things that cause disease, besides many times the man that is cured is weakened and less efficient, poor in money and in courage. The public schools, the libraries, the great universities that spread knowledge and thus prevent ignorance also prevent disease, for disease is a child of ignorance. It is ignorance that causes disease, and not disease that causes ignorance.

And I want to say to you gentlemen we must wake up on legislative matters. Just so long as members of our profession consider it a disgrace to get into politics to the extent of looking after our own interests, to say nothing of our client's interests, just that long will we be backward on that point. We should strive to check the entrance of disease to our country. We should also follow the example of New Zealand, where the state pays the mother \$30.00 for every child born so that she has the money to pay a physician instead of being forced to call in the cheap midwife.

Today intelligent men are working to prevent not disease only, not the physical ills alone, but collisions, conflict and all the ills of mankind, and this fight of prevention will be carried on more and more in every department of human life, and when the time shall come that our schools shall put into effective use the simple laws inculcating in the mind of youth the fact that a clean and healthy body is the best conserved by doing those things and taking those steps which will prevent disease, that time will mark the day when sickness will begin to disappear from the earth. It will be a struggle of titanic proportion, and its successful establishment may well appall the stoutest heart, the most determined will, when the wall of prejudice, ignorance and indifference is studied.

This problem is one which concerns the mental, moral and physical prosperity of all people throughout the civilized world, and to this extent every force and influence of individuals, societies,

churches, schools, states and nations, must be solicited and enlisted in a campaign of education and healthfulness, which is the only solution.

### **Obstetrics in the Country.**

By M. A. WARHURST, Sylvain, Oklahoma.

The Biological conception that human beings are no exception to the rule that all organized beings are in process of adaption to their surroundings in order to bring about an intelligent adjustment of the individual to his group of conditions. The treatment of the various phases of subject of obstetrics, are a mingling of scientific imagination, and scientific accuracy impressed by a hopeful idealism of a personal and social service not associated with any other branch of medicine. My practice in the country has covered a period of nearly twelve years, I have during this time diligently studied the literature pertaining to the subject of obstetrics. I can safely say that much that is taught in this literature can not be used to an advantage in the country, and much of it not at all in a majority of our country homes. I find that the physician is compelled to depend upon his own judgment in most of these cases. Theories given in text-books are all right where they can be applied, but there are so many places in the country homes where these rules and theories can not be used. Then the trying time comes. The doctor must be equal to the emergency and formulate plans of his own whereby he is enabled to conduct these cases to a successful termination.

The country physician is often passed up lightly by his city brother, because his methods are sometimes out of date. If you will observe him closely it is plain to be seen that his success in these cases often exceeds his overwise city brother, with his up-to-date methods, as he calls them. It is well to consider that the country physician and those who practice in the cities were educated at the same place. When we study this subject closely it is plain to be seen that the responsibility that rests upon the country doctor is heavier than the city doctor, who never undertakes his knotty problems alone, while it is quite different with the country physician. He is often miles from help and likely it is impossible to obtain it. There is no one that understands the situation better than he. His own resources are all he has to draw from. His equipment is, or ought to be, much more complete than his city colleague. We will admit that the surroundings of quite a number of our patients are not what would be considered ideal. Do we get good results? Observe our work and get familiar with the conditions we have to contend with and it will be found that our success is as good as the city physician who works under more favorable circumstances.

It would not be out of place to mention a few of the disadvantages we have to contend with. In the first place, a large number

of our patients never call us until labor is far advanced, and many times is complete when we are introduced. Second: When the patient is examined the uterus is not contracting; the patient is suffering from a severe headache. Then, again, the rectum is loaded; labor has been delayed for hours from this cause; swollen feet and legs. In most cases all of the mentioned troubles could have been relieved and labor shortened several hours if the patient had been put under treatment several weeks before labor was expected. The patient does not take the best of care as regards her toilet—that is, is not over careful about a bath or the articles placed under her. Often an old cotton sack, or an old comfort, and if you were to judge by appearance would readily reply that it had never been dipped in water.

I call to memory one case where I was called and found the woman suffering from a severe attack of septic fever, this being the third day of confinement. Her clothes had never been changed. I ordered her changed and told her that it was no wonder she was suffering from the fever. She replied: "No, that was not the cause, because she had used the same clothes in her former confinements and this was the first time she was ever bothered with the fever." They will never be used for this purpose again, for I saw them burn.

Another difficulty is the houses. In many instances there is only one room, generally one window, often none. A large family and all are compelled to occupy this one little room, cooking, eating and sleeping.

Another nuisance and often a dangerous problem to contend with is the meddlesome neighborhood "granny." After she has subjected the patient to many examinations for this purpose, she seldom thinks it necessary to wash her hands. She adds to this by saturating her hands with lard (the ingredient usually made use of). Thus equipped, she proceeds with the examination, ignorant of the mischief she may incur. When she has had her turn and finds the case too hard for her, she orders the doctor sent for, and when he arrives she insists upon giving instructions as to the management of the case. The physician goes to work with little energy, for he knows that more than likely the case is already infected. If the patient's recovery is retarded or her health ruined, the doctor bears the burden. Grandma, in her innocent, confiding way, could not do any possible harm. In my opinion every one that makes a practice of widwifery should be compelled to stand rigid examination, as does the physician, and obtain a license to practice. These conditions are not confined to poverty alone. They are found existing among all classes.

The following is my routine of practice as near as circumstances will permit: When my services are engaged before the termination of pregnancy, I advise exercise in the open air as much as possible and insist upon the sleeping apartments being as well ventilated as



the surroundings will permit. I urge the patient to avoid all crowded places. I admonish my patients and instruct them against the use of alcoholic beverages, tea, coffee, pickles and all high spiced foods. Total abstinence is strongly advised. I instruct my patient that it is to her interest to avoid straining, climbing long stairs, taking long and tiresome railway journeys or automobile rides, and one thing to especially guard against is the sewing machine. It is always well to keep a record and observe the date corresponding to the menstrual period and avoid all strenuous work, either physical or mental, by taking this simple advice. Serious trouble is often avoided, as more than one-half of the abortions take place on these dates.

Another item that at times is the cause of serious trouble and often overlooked is ill care for the teeth. If close observation is taken the teeth will be found to be the cause of many of the indigestible conditions with which we often have to contend. I have in mind two cases of severe and persistent vomiting of pregnancy which were checked by proper care of the teeth when all other means at hand had failed. During confinement I have the bed accessible from both sides, if possible; a hard mattress is preferred, but this is not always convenient. To protect the bedding, I use a new oil cloth or a rubber sheet. These are preferable to the Kelly pad for the reason that they can be made just as sanitary, are less bulky to carry and in many ways are more convenient. The use of an enema is very important and should never be overlooked, as a loaded rectum will delay a case of labor and likely be the chief cause of infection after labor is completed.

Vaginal douches before or after labor as a rule should be avoided and the patient should never be instructed to use them. This work belongs to the doctor or some experienced hand. Bearing down should never be encouraged until dilatation is complete or almost so. I use chloroform in small quantities and increase the amount as labor progresses. I have made use of ether in a few cases and find it as efficient as chloroform. After labor is complete the buttocks are cleansed with a weak solution of carbolic acid and iodine or bichloride. The patient is then examined to determine the extent of lacerations or tears, and if found extensive enough to repair, this is done immediately, for it is seldom that this cannot be done at this time and there are many and sufficient reasons why the lacerations should be repaired at this time. I forbid all internal treatment by the patient. After the first day the patient is instructed to lie on her face at short intervals, as constantly lying on the back tends to cause a backward displacement of the organs. The knee chest should be occasionally assumed, thus avoiding the liability of the sagging back of the uterus with more or less permanent effects.

In conclusion we will say to those who practice obstetrics that they should be patient, for this is one great factor of success. Let nature have her way until you are certain she needs assistance. I

want to emphasize the importance of repairing all lacerations and weakened points caused by the parturition. Until this is accomplished and the uterus is restored to its normal position the patient cannot be considered free from medical care. I cannot impress too strongly the vital importance of patience and cleanliness as the most important factors in the prevention of sepsis. If these measures outlined above are observed there will be less work for the gynecologist in the future. Poorly managed obstetrical cases furnish the gynecologist with many cases he would not get otherwise. There is too much carelessness going along these lines. Let us observe closer and endeavor to do more thorough work, and when we have done our whole duty there will not be so many women reminding us that they have not felt well since the baby was born.

### Infective Inflammation of Hand.

By J. J. DIAL, M. D., Muskogee.

At a casual glance the subject of this paper would seem to be one of minor importance, but a second and more careful consideration, together with many years' experience, has convinced me that infective inflammation of the hand is not only a very common and painful affection, but one that very frequently is followed by fatal results as to the function of the parts—finger or hand—involved, and sometimes proves fatal to life itself.

Paronychia, whitlow and felon are names used to indicate infectious inflammation situated at the ends of the fingers and in the hands. These inflammations may, and generally do, take their origin either in the skin, in the subcutaneous-cellular tissues, in the tendons, in the periosteum, or in the bones and joints.

The latest and perhaps most scientific names that should be applied to these variously situated inflammations of the hand refer to the anatomical structures primarily involved; as, where the infection first attacks the joint it is a true synovitis; the periosteum, periostitis; the tendon and sheath tenosynovitis, and so on. But it is not within the scope of a short paper to treat of these various afflictions of the hand separately.

Causes of inflammation we know are the action upon the tissues of infections, produced by the micro-organisms known as bacteria, and of these I shall not mention other than the three most generally met with—the staphylococcus pyogenes aureus and albus and the streptococcus pyogenes. The two first named are the etiological factors in about 80 per cent of the suppurative infections on the surface of the body—the *staphylococci causing the circumscribed inflammation and the streptococci those of a more diffuse character*. The infec-

tion generally, but not always, takes place through some point of injury in the skin. The masses of thickened epidermis on the hands of laborers often becomes bruised or torn, blistered or fissured. Slight punctured wounds in the hands of carpenters often may become very dangerous. The butcher or cook frequently becomes infected by handling putrid meats through cracks or fissures in the skin.

So much for the manner of getting the infection into the hand. I wish to digress here for the purpose of referring to two anatomical features of the hand that should never be lost sight of, as they have a practical bearing on the pathology and treatment of these affections.

The first is as to the arrangement of the connective tissue on the palm surface of the hand and fingers. The connective tissue here extends from the superficial structures perpendicularly to the deeper or palmar facias; in other words, the anatomical arrangement of the connective tissues here are so arranged that it runs perpendicular to the hand and finger instead of horizontal with it. Now this being true, you can readily understand how and why infective material is so readily and so often directed to the deeper parts when occurring on the palmar surface of the hand.

Perhaps all of us have seen a divided abscess on the palmer surface of the finger or hand—a superficial portion and a deeper portion connected by a small sinus. "Thus we have the classical shirt stud abscess of the old writers." On the dorsum of the hand and fingers the subcutaneous connective tissue fibers run horizontally; here inflammations remain more superficial.

The second anatomical arrangement of the hand having a bearing upon our subject has reference to the tendon sheaths. The sheaths of the three middle fingers do not extend beyond the heads of the metacarpal bones, while those of the thumb and little finger are continuous with the bursa of the palm of the hand and extends beneath the annular ligament of the wrist. This is the reason why a felon of the thumb or little finger is more liable and does more often spread to the palm and wrist and forearm, whereas a felon on either of the three middle fingers is more generally confined to those fingers only.

Clinically, it is not usually easy to make a differential diagnosis between the various forms (by forms I mean the structures primarily involved) of felon. The sub-periosteal form may be recognized by the peculiar burning, boring, throbbing character of pain and by the great length of time needed for the pus to come to the surface.

As to treatment. If a patient suffering from an infection of the hand or finger is placed absolutely at rest with a large moist antiseptic dressing applied, the inflammation will remain stationary, will circumscribe itself. Even the most severe infections of the extremities will subside in forty-eight hours if the two conditions mentioned above are established. The most important of the two, however, is rest.

Whenever suppuration is established, the pus cavity should promptly be opened by a free incision carried down to the bone, if necessary. It also should be the aim of the operator to clean out the pus cavity and remove all infected tissue so that the danger of spreading the virus may be reduced to a minimum. An incision should also be made promptly in the more severe types of felon before suppuration has been established, as the tension of the parts is relieved and the further spread of infection is thereby prevented.

It does not matter whether the infection be slight or severe at first. We can never know but that it will increase in severity and this increase in severity may be followed by palmar abscesses, necrosis of tendon sheaths with subsequent deformity or the lymphatics of the whole arm, with axillary glands, become infected and destroyed by suppuration, general septicaemia or pyemia followed — as I have witnessed — by death. Then the importance of promptly attending to these inflammations cannot be too strongly urged upon the surgeon, for they involve an organ which is of the utmost importance to all classes of individuals, especially so to those who are dependent upon their hands for their support.

### **Gastric Cancer.**

By DR. M. SMITH, Oklahoma City, Okla.

The object of this paper or report is not to offer anything new, but is intended only to review the status of symptoms (I might say off symptoms) of cancer of stomach. This report is intended for the internist as well as the surgeon, for it is through the former that the latter is consulted, hence the outcome of the case ultimately rests with the family doctor. Upon his ability and diagnostic skill will in all probability mean several years to the patient, so when we realize the weight of our responsibility, we are made to think more seriously of our patients' welfare. With all the classical symptoms present in a given case the diagnosis is comparatively easy, but the off cases are the ones that concern us most.

"Etiology" Osler, in his late work, quotes Welch in an analysis of 30,000 cases of cancer. He found the stomach involved in 21.4 per cent., this organ standing next to uterus in order of frequency, his figures plainly showing that cancer of stomach as well as other organs was on the increase.

Sex: Males much more frequent than females, at a ratio of 5 to 4.

Age: Statistics, as well as my own experience, shows cancer most prevalent between ages of 40 and 60, about 58 per cent.

Race: White predominates largely. Ratio in 150 cases — 131 white and 19 negroes (Osler).



Heredity: In Osler's 150 cases, there was a history of cancer in family of only 11; seemingly a larger per cent. were of tubercular heredity, about 38 per cent. (Osler).

Previous history of chronic stomach trouble was rather conspicuously absent in his cases.

Alcohol is one of the chief causes of cancer, either the periodical or constant drinker.

Trauma is rarely a cause of cancer.

I now come to the point of the greatest diversity of opinion, viz: Gastric ulcer. The physician is against; the surgeon in favor. Osler says in four of his cases he was able to trace cause to gastric ulcer. Mayos claim about 75 per cent. of their cases are due to ulcer. I am disposed to favor the latter, for I think the surgeon who operates before death is better able to make a pathological distinction than the internist who formulates his ideas on post mortem examinations.

I heard W. J. Mayo make the remark that during his medical career it was easy to make a diagnosis, but in surgery it was also easy until operation revealed the actual condition—"that surgery was like skin diseases." Carcinoma in its various types is the most common form of cancer of stomach.

The pylorus is the favorite location. Osler's statistics show more than 50 per cent. in this locality.

Symptoms in a well developed case are quite well defined, viz: Gradual emaciation, loss of appetite, pain after eating, gradually increasing as disease progresses until the patient abstains from taking food as long as possible; vomiting of undigested food, either alone or mixed with blood. "Haematemesis" frequent, after which relief is obtained. Constipation, is the rule; however, diarrhoea sometimes occurs, blood also being passed in the stool. All symptoms increase, and when the tumor is palpable the diagnosis is easily made. Test meals: Ewald—Absence of H. C. L. Oppler—Boas Bacillus yeast fungus Sarcintic, etc.

In the atypical variety the symptoms are quite different in many respects—the location of tumor; the entire absence of pain after eating; vomiting, if at all, very late; emaciation marked, resembling a progressive anaemia; boat shaped abdomen; constipation always; no belching; able to take food freely without pain, but has a disgust for it, just the opposite to the typical cases. Osler classes this type as "latent cancer."

DIAGNOSIS. I wish to lay special stress upon location of tumor in cancer of stomach. Upon investigation, I find less than 50 per cent. have the tumor in the epigastric region, probably one-fourth in umbilical, less than ten per cent. in the left, and even less than ten per cent. in the right hypochondriac region. This was a little surprising to me, considering the pyloric as being the most frequent location for cancer. In the past few years I have had occasion to

notice the left sided tumor in three or four cases, well around in the left hypochondriac region with no stomach symptoms whatever, but on post mortem found cancer of pylorus—two with complete stenosis, one with pylorus normally patent. The former, of course, late in the disease had stomach symptoms. In one of the cases the tumor had quite a range of movement on inspiration, also when stomach was loaded.

The pulsation caused by underlying abdominal aorta is often deceptive, requiring close watching to properly differentiate from other conditions.

Another very interesting point is the mobility often noticed, especially in tumors of pylorus. In two of my cases the tumor was fixed; on one it could be made to go from left to right hypochondriac region easily, being several inches from the normal position of pylorus.

Pain, as it is in many other cancerous conditions, is absent until disease is well advanced or unless it be one of the rapidly progressive types.

I am glad to say that with the rapid stride in medicine and surgery, physicians are and have been learning to regard the absence of pain of as much importance as severe pain, and are fast becoming acquainted with the fact that the word "cancer" does not necessarily mean pain. This can be aptly applied to cancer of breast and uterus, as well as stomach, etc.

Examination of stomach contents is a valuable aid in diagnosis. An Ewald test breakfast, consisting of a slice of stale bread, a large cup of tea with milk or sugar, is given at 7 a. m., and withdrawn at 8 a. m., showing absence of H. C. L. is a very valuable diagnostic sign, especially along with microscopical examination of stomach contents showing numerous bacilli, viz: Oppler-Boas, yeast fungus Carcinic, etc.

**DIFFERENTIAL DIAGNOSIS.** There are a few diseases that could easily be mistaken for cancer of stomach. Will name them in order of my cases presented.

First—Pernicious or progressive anaemia.

Second—Chronic gastric ulcer with infiltration, adhesions, etc.

In conclusion, I wish to impress upon this Society the frequent location of gastric cancer, viz: to the left of median line, same being well in the left hypochondriac region, notwithstanding we are taught by our anatomists the pylorus is just to the right side of median line in epigastric region.

**Treatment**—Light, easily digested diet, stomach lavage, etc. Surgical.

## EDITORIAL

### Chiropractors Practicing Medicine.

It will be of interest to the medical profession of Oklahoma—as we are becoming somewhat blessed with this cult—to know of the decision recently made by Magistrate Freschi of New York with reference to Chiropractic practice. The magistrate holds that Chiropractic adjustments as practiced by Chiropractors is a violation of the public health law.

A witness representing the New York Medical Society testified that she called on the defendant and told him that she had severe pains in the limbs, from which she suffered; that the defendant told her he would give her a course of adjustments for ten dollars, to be paid in advance. She was then examined by a physician and then received the “adjustments” at the hands of the defendant and in the presence of the doctor. The adjustments given by the defendant consisted in rubbing that part of the head behind the ears, the neck, the shoulders, and pressing the vertebrae of the witness's spine with his hands for the purpose of removing the cause of the disease, or “direct and free impinged nerves.” On another visit she was given cards which contained the defendant's name and office hours, and had printed “Consultation and spinal analysis free.” The back of this card contained this matter: “If you are sick, no matter what ails you, and have tried everything in vain, take Chiropractic adjustments and get well. \*\*\* Our work is done on the human switch-board, the spine.” The magistrate held that this was practicing medicine, or violating the regulations for practice, in that it held out a promise of ability to cure sickness and alleviate human suffering, and that he would so convey to the public an impression that he practiced medicine lawfully; that the defendant advertised himself as a graduate Chiropractor; that his adjustments was a new system of drugless healing. The magistrate held that it was strictly within the police power to regulate the practice of medicine, and that this Chiropractor was clearly performing the functions of a practitioner of medicine. The magistrate further stated that, although the Chiropractor was working under the direction and supervision of a registered physician, he was nevertheless acting in violation of the law, and sums up that phase of it in these words: “No physician can, in my opinion, delegate his power and authority, which is personal, to another, unlicensed and unauthorized to practice medicine. \*\*\* It is a settled law of the state that a corporation may not employ a physician to treat the ailments of persons applying to it for medical care, nor can it practice medicine or advertise to practice medicine by and through duly licensed and registered physicians, practicing under his name. \*\*\* As the prosecution admits, every one has the right to employ whom he chooses to treat him

for disease,' but the law, in order to protect the patient, prohibits all but licensed practitioners from accepting such employment. I question the ethics of a member of the medical profession who will lend himself in an association with a person who, although not licensed and registered to practice medicine, claims to be entitled to carry on practice of his alleged profession to cure and remove the cause of disease."

It should be remembered that the laws of New York and Oklahoma differ greatly, and the difference is a reflection on Oklahoma. We have never been able to write into our law the common sense application that all who treat disease by any system or form are really practicing medicine. Court after court in New York has held that the offering to prescribe, treat, heal, cure, or by any means take charge of or handle illness, is practicing medicine. All the various frauds and that monumental fanaticism, Christian Science, have wiggled about trying to escape similar decisions, but to no avail. The courts continue to take the common sense view of the matter and virtually demand that those whose purpose it is to treat the sick must know the sick when they see them.

Theoretically, from the time Oklahoma began writing her constitution to the present time, every effort has been made to make the laws modern and worth while. It is true that failure has been the result of many of these efforts, but the greatest failure of all has been to make our medical laws along common sense lines.

### **A Proposed Solution of the Troubles of Quarantine in Smallpox.**

An editorial in a recent issue of the Illinois Journal of Medicine takes the view that that state is about due for an extremely virulent type of smallpox, basing the opinion on the fact that for many years we have had no virulent cases to speak of, that vaccination has been observed and enforced less and less each year and that the hostility to vaccination by the off schools of healing — the Christian Scientists, Faith Curists and such classes — has rendered a large percentage of the people unprotected.

The death rate in Choctaw county in the months of January and February was reported to be in the neighborhood of fifty per cent — an alarming number when you consider the former mildness of this disease. A few years ago this state might have been truthfully called a hot-bed for smallpox. Fortunately it was not severe; a death was practically never heard of and a severe case was a curiosity.

The laymen do not know. If they did they would soon forget that many diseases seem to have cycles of severity. The physician should bear this in mind constantly and remind his clientele of this peculiarity.

Minnesota is said to have utterly discarded quarantine of smallpox; the cases may go where and when they please regardless of



the stage of the disease. This seems to be a reversion to the actions of the dark ages until we consider that the studies and the fruits of the study of Edward Jenner started 135 years ago and that while scientists, physicians, thinkers and the intelligent people of all the world generally agree that vaccination is practically absolute protection, there remains a small percentage of people who object to vaccination, organize to oppose it and make war on the medical profession and constituted authorities generally if any move is made looking toward compulsory vaccination. This being the case, it has been suggested that as those who want protection get it by vaccination, they need not fear contamination from those suffering from the disease. Why not let each individual handle the matter as he personally thinks best and desires? If he wants an ice cream soda and happens to be in the eruptive stage of the disease, what harm can there be in allowing him to meander up to the corner drug store and help himself? If the soda water boy objects, just have him walk around to the prescription case and order a vaccination point. Imagine the terror of an osteopath or chiropractic on being ushered into a room to try his hand at relieving a pustular case! The only fellow who would have all of us bested is the Christian Scientist. He would take down the receiver and answer the call with an "absent treatment." This small number of obstructionists should not be allowed to longer stand in the way of progress and enlightenment. Costly and inefficient quarantines need not be maintained. Just let the individual have his choice—vaccination or his League for Medical Freedom.

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### Some More About Friedmann's "Cure."

The latest well recognized authority to take a fling at Friedmann's claims is Dr. Karl Von Ruck, Asheville, North Carolina. Dr. Von Ruck, in the Delaware State Medical Journal, March, 1913, critically reviews the claim of Dr. Friedman, and practically rejects the whole thing. Not only from his own conclusions is this opinion based, but the conclusions of others are noted by Dr. Von Ruck.

Von Ruck takes a position that the use of living tubercle bacilli in immunization, no matter what their origin may be, is fraught with danger. He points out that many of the animals used for experimental purposes either died or showed toxic and organic disease due to the treatment, and that the remedy is not capable of protecting guinea pigs and other animals against a weakly virulent infection, and that all so experimented with acquired tuberculosis.

Von Ruck's total conclusions are too lengthy to enumerate here, but it is sufficient to say that he concludes with these statements: "As a whole, the early work of Friedmann impresses us as unre-

liable, as controlled by poor judgment, and above all as hasty and superficial. In the short space of a little less than two years this young man, on whose parchment the ink was hardly dry, undertook and settled, to his complete satisfaction, the solution of problems on which older and more experienced investigators would not have cared to express opinions until after many years of continued and patient research. In addition to all this, we have cause to assume that, even at that time, Friedmann's motives were not lofty, because as early as 1904 he took out patent rights in the German empire to protect him in the manufacture of a prophylactic serum."

### LICENSE REVOKED.

At the meeting of the State Board of Medical Examiners, held in Oklahoma City, April 9th, 1913, the license to practice medicine in the State of Oklahoma granted to Peter DeClark was revoked by the unanimous vote of the Board.

DeClark is one of a number of discredited physicians, who secured their license from former boards, and who hold themselves in readiness to answer the call of any fake medical concern that may locate in the State to lend an air of legality to its quackery.

DeClark was employed by the so-called Electro-Radio Co., at Tulsa. This outfit was formerly located in Louisville, Ky., doing business under the name of the Advanced Medical Institute, or Advanced Medical Society, and also under the name of the Delish-Ett Manufacturing Company, a fake corporation for the manufacture of candy. The State Board of Health of Kentucky got after the "Institute" and procured twenty-one indictments against them. X. W. Whitman, Miss Frances Holst and Dr. G. W. Foreman composed the concern. Whitman pleaded guilty to twenty-one indictments and paid \$700.00 in fines. Miss Frances Holst, who was the real financial end of the "Institute," pleaded guilty to one charge, was fined \$50.00 and agreed to leave the State and never return and to never engage in any such business again. It is an interesting fact that Miss Holst was defended by a Judge Richardson, of Tulsa, who claimed to be her uncle, and that the papers for the defense in the De Clark case were prepared in Richardson's office, and bear the notary stamp and signature of Lanra Richardson. Foreman also pleaded guilty, was fined \$50.00, and permitted to leave the State, and proceedings were instituted to revoke his license in Kentucky.

Whitman opened up in Tulsa under the name of the "Electro-Radio Company," or the "Electro-Radio Doctors," about the first of November, 1912.

He employed Peter De Clark and M. C. Kimball, the former of Oklahoma City, and the latter of Enid, as his medical staff, and at once began the use of large quantities of newspaper space. Their

lying advertisements continued until about the twenty-sixth of December, when De Clark was cited to appear before the State Board. Kimball went home, to Enid, and Whitman left town very hurriedly, and has not since returned. Kimball, however, came back and brought with him R. S. Linn (or Lynn) and the offices of the Electro-Radios blossomed forth anew, this time as Drs. Linn and Kimball, Electro-Therapeutists. DeClark drifted back to Oklahoma City. Both Kimball and Linn will be cited to appear before the State Board at their next meeting. The members of the Board are entitled to the support and thanks of every member of the State Society for their action in this matter. They are very willing to help us and it is up to each County Society to clear their own County of these parasites.

### **NEW RULING OF COMMISSIONER OF INSURANCE OF MISSOURI AFFECTING PHYSICIANS LIABILITY INSURANCE.**

In Re Liability Insurance for Missouri Physicians, Surgeons, Dentists and Druggists.

On the first day of February, 1912, my predecessor, Hon. Frank Blake, made an order prohibiting insurance companies from writing insurance indemnifying physicians, surgeons, dentists and druggists against liability for damages resulting from alleged error, mistake or malpractice in the practice of medicine, surgery, dentistry or pharmacy. The order, however did not preclude insurance companies from writing policies indemnifying such persons against the cost of defense in any suit, whether groundless or not, brought against the insured, but on the contrary, specifically provided that such companies could bind themselves to defend at their own cost, any such actions.

At the same time an order was made permitting such companies to write policies subject to certain conditions insuring owners of automobiles and chauffeurs against liability for both damages and the defense of suits growing out of the careless operation of automobiles.

I have carefully considered the ruling denying liability insurance to physicians, surgeons, dentists and pharmacists and have concluded that it is an unjust discrimination against them and not supported by law or required by sound principles of public policy. This ruling was made upon the theory that such insurance had the tendency to make the physician, surgeon, dentist and pharmacist careless in the practice of their profession, and should therefore not be permitted.

If this doctrine should be allowed and applied as a principle of law, it would overthrow the foundations on which insurance is built, whether life, fire, accident, health or marine, because if we follow the subject of insurance to its basic root, it will be found that negligence in some form is at least collaterally related to substantially all of it and the interest of third persons is always more or less involved.

If indemnity should be denied the physician because it encourages negligence, it should be denied the property owner, because it induces him to neglect precaution against fire, which like the negligence of the physicians, frequently endangers human life.

If the doctrine is sound, why permit indemnity against the carelessness of the chauffeur who generally has but little involved personally, but has opportunities greater than the physician to cause injuries to third persons and loss of life.

Similar arguments as to every form of insurance could be given, but these sufficiently illustrate my point, and since it is now firmly established by legislative enactments and court decisions that the theory of indemnity against liability for negligence is not violative of public policy this ruling should not be continued unless there is something peculiar to physicians, surgeons, dentists and pharmacists, which distinguishes them from all others.

It seems to me that if there be such a distinction it is in their favor, since their reputation for skillfulness, carefulness and efficiency is their most valuable asset, in fact their capital stock, and when it is impaired they are professionally insolvent. I do not believe the fact that one of this class held an indemnity policy would be a sufficient inducement to him to do anything to destroy or impair his standing or reputation as a professional man. He has more to lose personally by becoming careless than the insured chauffeur, property owner or employer of labor.

That there may be now and then those who violate this rule of human conduct, does not militate against the rule itself and the limitations under which I propose to permit these policies to be written, are in my opinion sufficient to place them on the ineligible list.

It also occurs to me that the distinction between insuring against liability for damages and insuring against the cost of suit defenses, is not one of the principle, but merely of degree. To indemnify against the cost of defense as can be done under Mr. Blake's order is to protect the assured against the payment of attorney fee and other court costs, which may amount to as much or even more than the judgment for damages.

Upon the theory of cause and effect and that like reason makes like law, if the one encourages negligence, the other does also and should be prohibited.

I have decided to revoke the order of Mr. Blake relating to indemnity insurance for physicians, surgeons, dentists and pharmacists and to hereafter permit such insurance to be written subject to the following conditions, limitations and restrictions:

First: No policy shall be written indemnifying the insured against any claim arising from the violation of any law or ordinance on the part of the assured, nor if at the time of the alleged error,



mistake or malpractice the assured or those to whom the policy extends, was under the influence of anesthetics, intoxicants or narcotics.

Second: Persons against whom as many as three final judgments for error, mistake or malpractice have been rendered shall be ineligible to such insurance and no company shall be permitted thereafter to write for such a person a policy, nor continue in force any policy then in existence.

CHAS. G. REVELLE,  
Superintendent of Insurance.

Dated this 7th day of March, 1913.

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## NEW BOOKS

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### EPIDEMIC CEREBRO SPINAL MENINGITIS.

By ABRAHAM SOPHIAN, M. D., Kansas City, Mo., Formerly with the New York Research Laboratory.

272 pages, 23 illustrations, cloth 272 pages, price \$3. C. V. Mosby Co., St. Louis, Mo., 1913.

This is a most timely book on a vitally interesting subject to the Medical profession, especially those physicians of the Southwest. Dr. Abraham Sophian is perhaps the best qualified man living today to write on the subject of Epidemic Meningitis. His long and arduous studies and work in the Research Laboratory of New York, and in the Texas epidemic in 1912 make his efforts demand the respect they are entitled to; then too, there is a strong personal interest in what Dr. Sophian has to say to many of us for we have followed him as students and profited by our acquaintance with him.

This book is said to be the only one devoted solely to this subject. A casual examination shows that the author has done an immense amount of work in preparation of this volume. He gives all the history obtainable of the characteristics of the various epidemics that have occurred from 1805 up to the present time throughout the world; he considers this disease from every standpoint, and cites numbers of cases typical and atypical. This book is timely and should be received by the physician in the most favorable way possible.

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### NEW AND NON-OFFICIAL REMEDIES, 1913.

Containing descriptions of the articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to January 1, 1913, from the press of the paper, 25, cloth, 50 cents.

This well indexed volume is a result of a part of the labors of the Council during the past year and contains all the findings or inclusions since the last report with previous inclusions and also all those articles whose usefulness has been found nil have been excluded.

The American Medical profession does not appreciate as it should the vast amount of work done by high-class men in the preparation of this work and every man should take time enough to investigate the thorough character of this little book. In no other way can one be kept free from the pitfalls of commercialism; the price has been made so reasonable that the only excuse for not digesting the edition is either apathy or laziness.

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### INTERNATIONAL CLINICS.

Volume 1, twenty-third series, edited by Henry W. Cottrell, A. M., M. D., Philadelphia, and other American and European authors.

Cloth, 302 pages, illustrated, price, \$2; J. B. Lippincott Co., Philadelphia and London.

This volume, the first for 1913, contains an interesting article on Aneurisms by Albert Abrams of San Francisco. A very interesting article on the Diagnosis and Treatment of Scarlet Fever, by Irving D. Steinhardt, New York, and many other articles of timely import to the profession.

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### THE CAREER OF DR. WEAVER.

A Novel. By MRS. HENRY W. BACKUS. Cloth, decorative, illustrated; 12 mo., pp. 373; net, \$1.25; postpaid, \$1.40. Boston; L. C. Page & Co.

This is a timely book, and will fall on good soil if read and considered by the medical profession. No physician can read this book without finding a great deal of food for thought.

The most startling feature of the book is the way its author has torn aside the curtain and revealed certain phases of the relationship between the medical profession and society. Certain ethical obliquities and certain moral obtundities are exposed in their nakedness. The proprietary hospital, the public clinic, the commercial medical essay, the self-exploiting doctor and the vice of fee-splitting are here justly considered among the various sinister influences now operative in our social complex. The expose will cause the brow of many a lay reader to become corrugated into an interrogation point. It will cause many an honest doctor to flush with indignation or to bow his head in shame. But he will see that Mrs. Backus has dealt with facts.

## NEW REMEDIES

Since March 1 the following articles have been accepted for inclusion with New and Non-official Remedies:

Aene Vaccin, Polyvalent, Sophian-Hall-Alexander.  
Anti-Meningitis Serum, Biologic Laboratories.  
B. Coli-Communis Vaccin, Polyvalent, Biologic Laboratories.  
Diphtheria Antitoxin, Biologic Laboratories.  
Gonococcus Vaccin, Polyvalent, Biologic Laboratories.  
Meningococcus Vaccin, Polyvalent, Biologic Laboratories.  
Pneumococcus Vaccin, Polyvalent, Biologic Laboratories.  
Pyocyanens Vaccin, Polyvalent, Biologic Laboratories.  
Staphylo-Aene Vaccin, Polyvalent, Biologic Laboratories.  
Staphylococcus Vaccin, Polyvalent, Biologic Laboratories.  
Streptococcus Vaccin, Polyvalent, Biologic Laboratories.  
Typhoid Vaccin, Polyvalent, Biologic Laboratories.  
Anti-Gonococcic Serum, Biologic Laboratories.  
Anti-Streptococcic Serum, Biologic Laboratories.  
Normal Horse Serum, Biologic Laboratories.

Yours truly,  
W. A. PUCKNER, Secretary.

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MENINGITIS.

D. I. Hirsch, Monroe, La., (Journal A. M. A., March 15), says that the mortality of cerebrospinal meningitis is still too high and, in view of the inaccessibility of the diplococci to the serum in some cases, he thinks that it would be advisable to modify Robb's procedure and irrigate in all cases, whether the fluid is purulent or not. Its most valuable results are the removal of a large number of cocci and the preparation of the field for the reception of the curative serum, which would more than compensate for the loss of a few leukocytes. The technic is described by him as follows: "Remove from 30 to 40 c.c. of fluid by lumbar puncture: then with a small syringe, using gentle pressure, introduce 30 c.c. of normal salt solution, 100 F. into the canal; allow this to return; repeat this three times in those cases in which the fluid is cloudy, and, in the purulent cases, repeat until the fluid returns clear. Now, the canal should be clear, all obstacles removed and the serum better able to do its work." Two cases thus treated are reported, and Hirsch thinks the treatment will be found to be of some benefit in the treatment of meningitis.

## PROGRAM

### OKLAHOMA STATE MEDICAL ASSOCIATION, TWENTY-FIRST ANNUAL MEETING, ENID, OKLAHOMA, MAY 13, 14 AND 15, 1913.

(All meetings, except those specifically excepted, will be held in the First Baptist Church. The Women's Auxiliary will hold its meetings in the First Presbyterian Church.)

#### GENERAL INFORMATION.

All members will register at the general meeting place, and only after their membership has been verified by comparison with the roster of the various county societies.

The annual dues for 1913 are \$2.00 and if you have not already paid them and secured a certificate of membership for the current year, this should be done at once, as the Secretary's annual report of membership is made to the Secretary, A. M. A., immediately after this meeting.

It should be remembered that the business of the Association is transacted by the Council and the House of Delegates and matters of such import and bearing should be prepared in advance for submission to either the Council or the House of Delegates.

It is suggested that the greatest possible dispatch should be observed in carrying out the various section programs and such matters as may be brought before the House of Delegates, as the time for proper execution of the program is often taken up with immaterial matter and discussions that can have no end if had under the wrong meeting place or section.

If you have not received your certificate of membership for 1913 you are requested to at once convey this information to the Secretary, stating to whom, when and where and by what method remittance was made. On receipt of this information the matter will be investigated and proper action taken to correct the record if need be.

#### CONDENSED PROGRAM OF MEETING.

**TUESDAY, MAY 13, 1913—2:00 P. M.**

Call to Order—James L. Shuler, President, Durant.

Invocation—Rev. J. E. Burt, First M. E. Church, Enid.

Welcome to Enid—Honorable Peter Bowers, Mayor of Enid.

Response—W. T. Tilly, Muskogee.



Address of Welcome on Behalf of Garfield County Medical Society, By the President—Walter M. Jones, Enid.

Response—S. S. Bobo, Norman.

Meeting of the House of Delegates, called by the President—James L. Shuler, Durant.

### **TUESDAY EVENING, MAY 13, 1913.**

Musical by the Faculty, Musical Department, Phillips Christian University, in the University Auditorium.

### **WEDNESDAY, MAY 14, 1913.—9:00 A. M.**

Meeting of the Section on Surgery—J. Hutchings White, Chairman, Muskogee.

Meeting of the Section on General-Medicine and Nervous and Mental Diseases—C. J. Fishman, Chairman, Oklahoma City.

Meeting of the Section on Gynecology and Obstetrics—S. H. Landrum, Chairman, Altus, Oklahoma.

### **3:00 P. M.**

Meeting of the Section on Eye, Ear, Nose and Throat—J. H. Barnes, Chairman, Enid.

Meeting of the Section on Pediatrics will be held immediately after the Section on Surgery or General Medicine is concluded, but probably not until the morning of May 15.—W. M. Taylor, Chairman, Oklahoma City.

### **WOMAN'S AUXILIARY.**

### **WEDNESDAY, MAY 14, 1913.—9:00 A. M.**

ALL MEETINGS WILL BE HELD IN FIRST PRESBYTERIAN CHURCH.

### **WEDNESDAY EVENING, MAY 14, 1913—8:00-9:00 P. M.**

Lecture by J. Block, Kansas City (Illustrating a paper read in the Medical Section).

### **9:00 P. M.**

Banquet in the First Baptist Church. (Note—A resolution was passed at the Annual meeting of 1912, in Shawnee, which provided that banquets and smokers at the annual meeting should be paid for by those participating). In accordance with this resolution the Ladies of the First Baptist Church have agreed to furnish the menu for the occasion; the price per plate will be \$1.00.

**THURSDAY, MAY 15, 1913.**

Meeting of the House of Delegates.

Election of Officers.

Conclusion of those programs not completed.

**SECTION ON SURGERY.**

**J. HUTCHINGS WHITE**, Chairman, Muskogee.

**WEDNESDAY, MAY 14, 1913—9:00 A. M.**

Address by Chairman.

1. "Cholelithiasis, Cholecystitis, Cholangitis"—D. F. Stough, Geary.
2. "Head Injuries"—S. R. Cunningham, Oklahoma City.
3. "The Treatment of Fractures"—Ira W. Robertson, Dustin.
4. "Fee Splitting—The Surgeon and the General Practitioner, the General and the Surgeon"—David A. Myers, Lawton.
5. "The Surgical Treatment of Carcinoma of the Lower Lip, with a Report of 199 Cases"—E. H. Beckman, Rochester, Minn.
6. "Infections of the Hand"—John W. Riley, Oklahoma City.
7. "The Pathological Thyroid and Its Treatment" (with special reference to hyperthyroidism)—Fred Y. Cronk, Guthrie.
8. "Treatment of Fracture of the Neck of the Femur"—Robert L. Hull, Oklahoma City.
9. "Defects Within the Lower Spinal Canal"—Horace Reed, Oklahoma City.
10. "Thigh Amputation Followed by Recovery in a Man 108 Years of Age"—Fred S. Clinton, Tulsa, Oklahoma.

(This Section, if not completed on the first day, will finish on call of the Chairman, after the meeting of the House of Delegates on the morning of May 15, 1913).

**SECTION ON GENERAL MEDICINE AND NERVOUS AND MENTAL DISEASES.**

**C. J. FISHMAN**, Chairman, Oklahoma City.

**WEDNESDAY, MAY 14, 1913—9:00 A. M.**

Address by the Chairman.

1. "Melancholia of Involution"—F. B. Erwin, Norman.
2. "Pellagra, With Especial Reference to a New Theory of Its Etiology"—James R. Calloway, Pauls Valley.
3. "Pain As a Factor in Shock"—Leigh Watson, Oklahoma City.
4. "The Abrupt Removal of Morphine and Cocain in the Treatment of the Drug Habit"—A. A. Thurlow, Norman.

### Symposium on Heart and Blood Vessel Diseases.

5. "Endocarditis"—P. P. Nesbitt, Muskogee.
6. "Myocarditis"—T. H. Flesher, Edmond.
7. "The Diagnosis and Prognosis of Valvular Heart Lesions"—R. W. Williams, Anadarko.
8. "The Functional Diseases of the Heart"—T. F. Renfrow, Billings.
9. "Surgery of the Heart"—R. M. Howard, Oklahoma City.
10. "Arteriosclerosis, With Especial Reference to Symptomatology"—L. J. Moorman, Oklahoma City.

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### "The Relation of Venereal Diseases to the Practice of Medicine.

11. "The Prophylaxis of Sexual Diseases"—H. L. Wright, Hugo.
12. "Some of the Sociological Aspects of Sexual Diseases"—A. L. Risser, Blackwell.
13. "The Relation of Nervous Diseases to Venereal Diseases"—J. W. Duke, Guthrie.
14. "The Medical Aspects of Sexual Diseases"—C. R. Day, Oklahoma City.
15. "The Medical Diagnosis of the Prostate Gland"—John R. Caulk, St. Louis, Mo.
16. "The Diagnosis of Surgical Renal Affections"—J. Block, Kansas City, Mo. (Practical Demonstration before the General Session Wednesday Evening at Eight O'Clock.)
17. "The Physician and the Pharmacopeia"—Chas. W. Fisk, Kingfisher.
18. "A Plea for the Routine Examination of the Blood for the Malaria Plasmodium in Obscure Medical Cases"—L. A. Mitchell, Frederick.
19. "The Continued Fevers of the Southwest, Their Diagnosis and Prophylaxis"—Thomas L. Fernbaugh, A. B., M. D., First Lieutenant, Medical Corps U. S. Army, stationed at Fort Sill, Okla.
20. "Pernicious Anaemia"—Lea A. Rielly, Oklahoma City.
21. "Some of the More Characteristic Differential Points of the More Common Forms of Insanity"—Dr. W. W. Rucks, Guthrie.
22. "Arteriosclerosis With Especial Reference to Its Etiology"—W. G. Little, Okmulgee.

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(This Section, if not completed on the First Day, will finish on call of the Chairman, after the meeting of the House of Delegates, on the morning of May 15, 1913).

**SECTION ON GYNECOLOGY AND OBSTETRICS.****S. H. LANDRUM, Chairman, Altus.****WEDNESDAY, MAY 14, 1913—9:00 A. M.**

1. "A Study of Fifty Cases of Pyosalpinx"—W. E. Dicken, Oklahoma City.  
Special Discussion—J. E. Standifer, Elk City, Okla.
2. "The Medical Practitioner's Field in Gynecology"—Winnie M. Sanger, Oklahoma City.  
Special Discussion—C. H. Butler, Tulsa, Okla.
3. "Hysterectomy, the Various Methods in Use, a Plea for Panhysterectomy When Possible"—Curt Von Wedel, Oklahoma City.  
Special Discussion—Raymond H. Fox, Altus.
4. "Ovarian Cysts"—R. L. Holt, Mangum, Okla.  
Special Discussion—Lola E. Andrews, Oklahoma City.
5. "Improvements in the Treatment of Prolapse of the Uterus—Operative and Non-Operative Methods"—(A Lantern Slide Demonstration)—H. S. Crossen, St. Louis.  
Special Discussion—
6. "Obstetric Ideals in Rural Practice"—David L. Garrett, Altus, Oklahoma.  
Special Discussion—G. A. Wall, Oklahoma City.
7. "The Less Frequent Infections"—O. P. McNair, Oklahoma City.  
Special Discussion—
8. "An Unwritten Chapter in Gynecology—Syphilis of the Uterus, Tubes and Ovaries"—Ira Carlton Chase, Ft. Worth, Texas.  
Special Discussion—
9. "A Plea for More Rational Intervention in Obstetrical Complications"—W. A. Fowler, Oklahoma City.  
Discussion—
10. "A New Procedure for the Relief of the Retroverted Uterus"—John F. Kulm, Oklahoma City.  
Discussion—

**SECTION ON EYE, EAR, NOSE AND THROAT.****J. H. BARNES, Chairman, Enid.****WEDNESDAY, MAY 14, 1913.—3:00 P. M.**

1. "Life Not a Matter of Chemistry, With Observation on Vitalism and Heredity"—L. Haynes Buxton, Oklahoma City.
2. "Interstitial Keratitis"—H. H. Wilson, Shawnee.
3. "Orbital Cellulitis"—M. K. Thompson, Muskogee.



4. "Trachoma Incorrectly Diagnosed and Treated"—E. Brent Mitchell, Lawton.
5. "Mastoiditis"—D. W. Miller, Blackwell.
6. "Detachment of the Retina"—J. M. Stooksbury, Shawnee.
7. "Some Things About Dentistry and Their Importance to Nose and Throat Men"—C. E. Lawrence, Enid.
8. Clinic—"Chronic Pharyngitis."
9. "Hysterical Aphonia"—S. M. Jenkins, Enid.
10. "Treatment of Corneal Ulcer, With Special Reference to the Use of Methylene Blue"—Meyer Wiener, St. Louis, Mo.
11. "Laryngeal Tuberculosis"—A. W. Roth, Tulsa.
12. "A Little Personal Experience With Holmes Naso-Pharyngoscope"—D. D. McHenry, Oklahoma City.
13. "Treatment of Nose and Throat with Special Reference to Conservation of the Voice"—W. A. Aitken, Enid.
14. "The Ideal Tone"—Justin L. Harris, Professor of Music and Dean of the College of Fine Arts, Phillips University, Enid.
15. "Nasal Polyps"—C. E. Orelup, Enid.
16. "The Eye in Its Medico-Legal Aspect"—J. R. Hamil, Guthrie.
17. "Bilateral Panophthalmitis"—L. M. Westfall, Oklahoma City.
18. "Jequirity in Ophthalmic Practice"—C. J. Lukens, Enid.
19. "Sub-Mucous Resection of the Septum"—W. Albert Cook, Tulsa.

(This Section will convene after the meeting of the House of Delegates on the morning of May 15, 1913, on call of the Chairman).

### SECTION ON PEDIATRICS.

W. M. TAYLOR, Chairman, Oklahoma City.

THURSDAY, MAY 15, 1913.—10:00 A. M.

1. "Childhood as a Factor in the Profession of Medicine"—E. Forest Hayden, Tulsa.
2. "Brief Consideration of the Skin of a Child"—A. B. Leeds, Chickasha.
3. "Milk as a Food for Infants"—J. T. Martin, Oklahoma City.
4. "Acute Nephritis Following Pneumonia in Childhood"—Loyal J. Torrence, Okmulgee.
5. "Child Welfare a Matter Neglected by the Laity and Physician"—Sessler Hoss, Muskogee.
6. "Intestinal Parasites"—Floyd Bolend, Oklahoma City.
7. "The After Treatment of Poliomyelitis by Mechanical Methods"—W. G. Brymer, Dewar, Okla.

## WOMAN'S AUXILIARY.

### SIXTH ANNUAL CONVENTION,

MAY 14 AND 15, 1913.

The Women's Auxiliary will hold all their meetings in the First Presbyterian Church. The wives, daughters and sweethearts of all members of the Oklahoma State Medical Association are cordially invited to be present and participate in the meetings.

### OFFICERS

President—Mrs. Thomas Clay Sanders, Shawnee.  
First Vice-President—Mrs. H. M. Williams, Wellston.  
Second Vice-President—Mrs. T. F. Renfro, Billings.  
Recording Secretary—Mrs. P. H. Mayginnnes, Tulsa.  
Treasurer—Mrs. Edmund S. Ferguson, Oklahoma City.  
Corresponding Secretary—Mrs. J. M. Byrum, Shawnee.

### WEDNESDAY, MAY 14.

10:00 A. M.—Call to Order by President, Mrs. Thomas Clay Sanders, Shawnee.

Invocation—Rev. L. C. Walter, Enid.

Address of Welcome—Miss Elizabeth Boyle, Enid.

Response—Mrs. P. H. Mayginnnes, Tulsa.

President's Address.

Paper—"History and Purpose of the Women's Auxiliary to the Oklahoma State Medical Association"—Mrs. W. C. Bradford, Shawnee.

Symposium—"How Can We Best Promote Interest and Establish Auxiliaries to the County Societies, and in What Way Can We as an Organized Body Be of the Greatest Assistance to the Physicians and the Public"—Mrs. Little, Okmulgee; Mrs. Clark, El Reno; Mrs. Blesh, Oklahoma City; Mrs. Bobo, Norman.

Reading—"Her Cuban Tea," *By Pauline Phelps*—Mrs. H. L. Wright, Hugo.

1:00 P. M.—Luncheon, Tendered by the City Federation of Women's Clubs of Enid.

### THURSDAY, MAY 15.

10:00 A. M.—Business Meeting:

Reading of Minutes of Previous Day's Session.

Reading of Minutes of 1912 Meeting.

Reports of Officers.

Reports of Committees.

Reports of Delegates from County Auxiliaries.

Paper—"Loyalty to Our Husbands, The Doctors"—Mrs. C. R. Day, Oklahoma City.

Paper—"The Rights of the Doctor's Wife"—Mrs. Julian Field, Enid.

Unfinished Business.

Election of Officers.

Reading of Minutes of This Day's Session.

Introduction of New Officers.

Adjournment.

Automobile Ride Over the City.

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#### **OKLAHOMA PUBLIC HEALTH ASSOCIATION.**

The Oklahoma Public Health Association will hold its meeting on May 14th. The program has not yet been entirely arranged, but it is announced that Dr. A. Sophian, formerly of the Rockefeller Institute and now of Kansas City, will deliver an address to the body on the second day of the meeting. All physicians, whether members of the Association or not, are invited to be present at this time and hear Dr. Sophian.

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#### **SPECIAL NOTICE.**

The Jackson County (Kansas City), Missouri, Medical Association has decided on the Chicago Great Western Railway as the official route to the American Medical Association meeting at Minneapolis, Minn., in June. Special train has been arranged for and parties desiring accommodations on this train please address the undersigned. Pullman rates from Kansas City to Minneapolis will be \$3.00 for lower berths, \$2.40 for upper berths and \$11.00 for drawing room. Train will carry observation car, Pullmans and dining car.

H. B. BRYNING, D. P. A., C. G. W. Ry.,  
809 Walnut St., Kansas City, Mo.

## LIST OF CONTRIBUTORS TO VOLUME V.

## A

Aderhold, T. M. ....	125
Alford, J. M. ....	113

## B

Baze, R. J. ....	452
Barnes, J. H. ....	496
Berry, Wm. D. ....	72, 317
Berry, V. ....	471
Blachly, C. D. ....	62, 168, 402
Blesh, A. L. ....	93
Bowling, J. A. ....	321
Breese, Harry ....	295
Bungardt, A. H. ....	64
Brown, Benj. H. ....	489

## C

Carson, F. L. ....	8
Coulter, T. B. ....	502

## D

Day, C. R. ....	134
Dial, J. J. ....	539
Dicken, W. E. ....	375
Duke, J. W. ....	291

## E

Ewing, F. W. ....	88
-------------------	----

## F

Ferguson, E. S. ....	52
Fishman, C. J. ....	220, 271, 324, 380, 421, 473
Foster, M. H. ....	165

## G

Griffin, D. W. ....	441
Grosshart, Ross ....	246

## H

Hayden, E. Forest ....	339
Heitzman, C. W. ....	68
Howard, R. M. ....	45
Hugheson, F. L. ....	266
Hull, Robt. L. ....	160
Hume, C. R. ....	104

## K

Kilpatrick, G. A. ....	469
------------------------	-----



## L

Landrum, S. H. ....	416
Leeds, A. B. ....	263, 504
Lerskov, Andrew ....	458
Little, W. G. ....	485
Long, D. ....	411
Long, LeRoy ....	96
Lukens, C. J. ....	367

## M

Mayberry, S. N. ....	302
McCarley, L. H. ....	256
Moorman, L. J. ....	237
Montgomery, A. B. ....	6
Montgomery, D. M. ....	492
Murdock, L. H. ....	466

## N

Newton, W. B. ....	152
--------------------	-----

## P

Puckett, Carl ....	363
--------------------	-----

## R

Reed, Horace ....	181
Reeder, C. L. ....	1
Risser, A. S. ....	200

## S

Sanger, Winnie M. ....	193
Simmons, Geo. H. ....	510
Smith, J. B. ....	395
Smith, M. ....	541
Smith, Millington ....	100
Stewart, W. E. ....	525

## T

Taylor, Wm. M. ....	259
ThurLOW, E. A. ....	377
Todd, H. C. ....	373
Torrance, L. B. ....	408

## V

von Wedel, Curt, Jr. ....	12, 379
---------------------------	---------

## W

Wall, G. A. ....	308
Warhurst, M. A. ....	536
Watson, L. F. ....	115, 346, 529
White, J. H. ....	211
Williams, H. M. ....	355

## W—Continued.

Williams, R. W. ....	88
Willour, L. S. ....	391
Wilkiemyer, Fred J. ....	81
Wilson, H. P. ....	91
Wright, H. L. ....	533

## Y

Young, A. D. ....	11, 149, 425
-------------------	--------------

## INDEX TO VOLUME V. 1912-13

## A

Abdominal Infections ....	181
Abdominal Operations, Combined Local and General Anesthesia in. ....	113
Atrophy, Acute Yellow of the Liver. ....	525
Adenoids, Ear Complications in. ....	373
Address of the President, C. L. Reeder. ....	1
Address of Chairman, Pediatric Section, Carl Puckett. ....	6
Address of Chairman, Surgical Section, F. L. Carson. ....	8
Address of Chairman, General Medicine and Nervous and Mental Diseases, A. D. Young. ....	11
Alcoholic Insanity ....	291
A. M. A., Membership in. ....	510
Anesthesia, Advantages of Combined Local and General. ....	115
Anesthesia, Local in General Surgery. ....	529
Appendicitis, Chronic and Indigestion. ....	100
Annual Meeting, 1912, Program of. ....	19
Arteriosclerosis . . . . .	149

## B

Books, New. ....	27, 78, 121, 173, 226, 285, 233, 536, 478, 519, 550
------------------	-----------------------------------------------------

## C

Caisson Disease ....	489
Catarrh, Nasal, Etiology and Treatment of. ....	152
Cerebral Symptoms, Unusual in a Child. ....	485
Children, Intestinal Diseases of. ....	363
Children, Lymphatic Diseases of. ....	193
Common Duct, Pressure on. ....	377
Constipation, Treatment of. ....	266
Copriopia . . . . .	367
County Societies ....	178, 226, 386, 433, 477

## D

Diagnosis of Fevers, Etc. ....	421
Diet, Liberal, in Typhoid. ....	64
Differential Diagnosis and Treatment of Influenza. ....	295

**D—Continued.**

Digestive Disturbances of Gastric and Duodenal Ulcer.....	93
Digestion and Chronic Appendicitis.....	100
Duct, Common, Pressure on.....	379
Duodenal Ulcer and Digestion.....	92

**E**

Ear Complications from Adenoids.....	373
Ear, Loss of Hearing in One from Injury.....	496
Eclampsia, Puerperal, Causation and Treatment.....	188
Eclectic Convention .....	113
Ectopic Gestation .....	302
Editorial.....	17, 74, 118, 168, 223, 326, 383, 430, 475, 515, 544
Effusions, Serous .....	165
Enteroptosis as a Factor in Indigestion.....	91
Epileptic State, Gangrene in.....	397
Eugenics . . . . .	6

**F**

Faculty Resolution With Reference to Robert F. Williams.....	476
Fevers, Diagnosis of.....	421
Fibroids, Unusual Symptoms Due to.....	471
Fracture of Skull.....	246

**G**

Gangrene from Status Epilepticus.....	377
Gall Bladder and Pancreas in Indigestion.....	91
Gall Bladder Surgery, Failures in.....	211
Gastric Indigestion .....	81
Gastric and Duodenal Ulcer .....	93
Gastric Cancer.....	541
General News.....	78, 172, 224, 282, 332, 386, 433, 517
Gestation, Ectopic .....	302
Gonorrhoea, Phyllogen in Treatment of.....	323
Gynecology, Preventive .....	263
Gynecologist, the General Practitioner as.....	395

**H**

Hand, Infection, Inflammation of.....	539
Heart, Disease of the Muscle of.....	237
Heat, Disorder Due to Intense.....	469
Hemorrhoids . . . . .	60, 346
Hemorrhoids, Treatment of With a New Clamp.....	317
Hearing, Loss of, in One Ear Due to Injury.....	496
Hookworm With Malaria and Mania.....	168
Hygiene, the Physician as a Teacher of Sexual.....	200

**I**

Indigestion and Chronic Appendicitis.....	100
Indigestion, Gastric .....	81

## I—Continued.

Indigestion, Intestinal .....	88
Indigestion, Enteroptosis in .....	91
Indigestion, Digestive Disturbances in .....	93
Indigestion, Gall Bladder and Pancreatic Disease a Factor in....	96
Infant, Sarcoma of Kidney in.....	256
Infective Inflammation of Hand.....	539
Inflammation, Chronic Pelvic .....	45
Intestinal Diseases of Children.....	363
Intestinal Disturbances of Pregnancy.....	402
Insane Patient and the Family Physician.....	441
Insanity, Alcoholic .....	291
Ischemic Paralysis .....	169
Intussusception in 11-Months-Old Child.....	375

## J

Jaundice Due to Pressure on Common Duct.....	377
----------------------------------------------	-----

## K

Kidney, Unilateral, Surgical, Etc.....	379
Kidney, Sarcoma of, in Infant.....	256

## L

Labor, Fatalities During and Immediately Following.....	391
Laboratory, the Private, an Aid to the Physician.....	62
Laparotomies, One Hundred Consecutive, Statistics.....	125
License Revoked.....	547
Liver, Acute Yellow Atrophy of.....	525
Lobar Pneumonia, Acute .....	339
Local Anesthesia in General Surgery.....	529
Lymphatic Diseases of Children.....	193

## M

Mania With Hookworm, Etc.....	168
Meningitis, Epidemic Cerebrospinal.....	355
Mental Disturbances and Venereal Disease.....	134

## N

Nasal Catarrh, Etiology and Treatment of.....	152
Nervous Disturbances and Venereal Infections.....	134
Nervous Diseases of Women.....	492
New Ruling of Commissioner of Insurance of Mission Affecting Physicians' Liability Insurance.....	548

## O

Obstetrician and Gynecologist, General Practitioner as.....	395
Obstetrics, Early Day Experience Among Indians.....	411
Obstetrical Cases, Deductions from 200.....	466
Obstetrical Surgery .....	504
Obstetrics in the Country.....	536



O – Continued.

Officers' Directory ..... 28  
Ophthalmia, Sympathetic ..... 52  
Osteomyelitis, Acute Infective Variety..... 12

P

Pathological Specimens, a New Way to Preserve..... 72  
Pancreas and Gall Bladder Disease..... 96  
Paralysis, Ischemic . . . . .160  
Pellagra . . . . .104  
Pelvis Inflammation, Chronic ..... 45  
Phylacogen and Gonorrhoea ..... 323  
Pleurisy, Suppurative ..... 68  
Pneumonia, Acute Lobar .....339  
Pregnancy, Extra Uterine .....321  
Preventive Medicine or Conservation of Human Life.....533  
Program of Twenty-first Annual Meeting.....553  
Puerperal Eclampsia .....188  
Puerperal Sepsis, Prevention and Treatment.....308  
Pylorospasm . . . . .259

R

“Radium Water” .....441  
Reciprocity, Oklahoma Agreement .....274  
Reflexes, Uterine.....408  
Report of Licenses to Practice Medicine.....26, 232, 331, 438

S

Sarcoma of Kidney in Infant.....256  
Serous Effusions . . . . .165  
Sepsis, Puerperal .....308  
Sexual Hygiene, the Physician as Teacher of.....200  
Skull, Fracture of.....246  
Specimens, Pathological, a New Way to Preserve..... 72  
Surgery of Pelvic Inflammation..... 45  
Surgery, Obstetrical . . . . .502  
Surgical Section, Address of Chairman..... 8

T

Tabetic Patient, Letter from.....428  
Throat, Its Value to the General Practitioner.....504  
Typhoid, Plea for More Liberal Diet in..... 64

U

Uterine Misplacement . . . . .452  
Uterine Reflexes . . . . .408

V

Venereal Infections and Criminal and Mental Disturbances.....134

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Woods		
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E. S. Lain, Oklahoma City, 1912-1913.

J. Hutchings White, Muskogee, 1913-14.

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Next Meeting—Oklahoma City, April 8, 9, 10, 1913.

Address all communications to the Secretary.

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### LEGISLATIVE COMMITTEE.

J. Q. Newell, Oklahoma City.  
C. R. Day, Security Building, Oklahoma City.  
John W. Duke, Guthrie, Oklahoma.

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### NECROLOGY COMMITTEE.

J. B. Smith, Durant, for three years.  
A. D. Young, Oklahoma City, for two years.  
Geo. A. Boyle, Enid, for one year.

